Field Book

of

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Berkeley.

— Coulter, Dr. Thomas, botanical explorer in California, referred to in Royal Geog. Journal, 11; 215-49 (1841), where is published vocabularies of the native tribes obtained by him at various missions in California which are named. The article is by John Scouler of North-west America. He mentions the work of W.F. Tolmie.

— Californian Botanical Explorers. See references of value in Parish's "Sketch of the Flora of Southern California" in Bot. Gaz. in 1903. He mentions the work of Daniel Cleveland, etc. Also refers to a biog. sketch of Sutton Hayes in either this art. or one of those on the palms.

Mendocino Co.

June 18, 1902

Between Idol House & Cummings.

— Camped last night on Eel banks in a picturesque spot.

— Yew trees along stream. Taxus brevifolia

— No Christmas Berry seen since leaving Ukiah. No Redwood seen since those this side (4 or 5 mi.) of Harris Mill.

— Holodiscus discolor — Idol House

— No. 1872. Viburnum. Corolla 4 or 5-merous, more 5-merous ones than 4 merous ones as casually observed. Bushes 5-9 ft. high, very showy.

— Quercus chrysolepis, fine lofty trees (not wide-spreading type) but broad enough to be beautiful 75 ft. high, banks of stream in cañon near Cummings. In fl. Mr G. took picture.

Cummings

= 1500 ft.

- Quite a wood of Quercus Garryana on hill across river from Cummings.
- Quercus chrysolepis at "
- " Wislizenii - large tree just above Cummings
- Beautiful mixture of hard & soft wood trees about Cummings - then area of broom open between with not even brush on it; stately oaks on the ridges standing apart here & there or in clusters of 2 or 3.
- Long Valley to Idol House. Yellow Pine forked at 75 ft, each fork bearing above 2 prongs.
- Sambucus glauca terect, 20 ft. high, upper end of Long Valley.
- Quercus Garryana - 55 ft. h. above Cummings.

No. 1873. ~~Godetia~~ Clarkia purpurea ssp quadrivulnera

Mendocino Co.

June 18, 1902.

- Some Douglas Spruce all the way from Laytonville but mostly Yellow Pine.
- Tan Oak, good-sized trees, 45-50 ft. on slopes over divide just beyond Cummings.
- Lots of Maul Oak, going on up hill beyond first little summit spoken of in preceding ff. Trees 60 ft. h. Trunks straight and limbless or at least unbranched for 20 or 30 ft. This is the remarkable fact about these oaks that they would furnish good logs. About the only true oaks in Calif. that will
- Fine driving along ridge after reaching summit; we think we can see ocean, and have a fine sharp view of S. Yallo Bally and Mt. Linn
- Eriophyllum - see next p. No. 1874 - showy and abundant - Long Valley to Dyerville - the only species

High Ridge, summit above
[Blue Rock Ridge]

- Quercus Garryana, near ranch house. Barnes on opp. side road (fine view of ocean. (I also took picture of rocky point near this tree (Spool no. 2. (7).) 14 ft. 8 in at 5 ft, 55 ft. high. Exceptionally large trunk, and fine spreading top in spite of having lost 1 or 2 main branches. The buildings of the cattle ranch (Blue Rock Station) are 200 yards back and the rocky point 600 yds ahead. It is a picturesque spot, and the rocky point is peculiar to this particular locality.

Mr. Goddard took a picture of this oak: the team in the foreground.

No. 1874. Eriophyllum perennial. To found of landslide cavities as Lotus humistratus.

Mendocino

Cummings to Harris, June 18, 1902

- There are five trees along this ridge, tapiness of the Black Oak, the yellow-green of the Maul Oak, the glossiness of the Madrona leaf and his holiday branches, the airy spires of the Yellow Pine, the sombreness of the Douglas Spruce — all this gives great variety to this openly wooded spot.

The rocky point has at its base: Bay Laurel, Garryana & Black Oak, Yellow Pine. Rocky point = Blue Rock

No. 1875. Cirsium occidentale, Open hillside.

- This ridge is about 4000 ft. elevation acc. to Mr. Goddard.

No. 1876. Yellow Pine. Pinus ponderosa Dougl. Male cones 8-15 in a cluster, lilac-purple, 1-1¼ in. long. Female flower cones (simplicis) in formaline. Pollen just beginning to fly.

High Ridge, summit above
[Blue Rock Ridge] nw. Mendocino Co.
No 1877. Arenaria. douglasii Fenzl. Rocky ledge
No 1878. Composite. " " Rigiopappus leptocladus Gray.
– From the noon camp on the ridge we have an elegant long cross-country view clear to South Yallo Bally and ? Middle Yallo Bally. The divide between the Russian & Eel is very low, considering the very high ridges between forks of the Eel. There is a high mountain mass west of Ukiah, as seen from here, and a distinct gap west of Calito to the ocean (Westport road.). There is a high broken mass of rock just southeast of our noon camp (and some distance toward Round Valley) that should have a name, as

Cumming to Harris, June 18, 1902.
= 2100 ft.

doubtless it has. It is a landmark.
We had our noon camp at Blue Rock. It is a delight to have such a camp with wide far-reaching views – as it was a delight down toward Sherwood to camp in green country bye-ways.

The grade has been narrow in places – so that there has been wagon lifting when we met teams. Mr. G. told a story of a man who fretted and fumed and swore. The other man was cool, pleasant, judicial. Now lets talk it over. I have an arithmetick down at my ranch – "Ah, what good will your arithmetic do down there" – Why I can figger out most anything" he said; as the man got angrier he reached back for his arithmetic and pulled out a jug of whiskey. The angry man took a swig and said: Well now I guess I can back out right there and you can get by!!

[Blue Rock Ridge)
nw. Mendocino Co.

Blue Rock to

4200 ft. alt.

- My watch stopped last night. Watches do occasionally require winding. That is the great trouble with a watch. Mr. G. gave me the time last his stop and we "lose the seed".

- The altitude of the ridge near Blue Rock is about 4200; we made quite a drop and came to a ranch mail box labeled 3500 ft. Along the ridge to Bells Springs were splendid groves of Black Oak. The trees ran up to 70 ft, possibly 80. There was enough Garryana all along. It was noticeable that Garryana was on the highest ridges and in finer or at least larger form than we had seen it.

Harris, June 18, 1902

=2100 ft.

Near Bells Springs were splendid sapling forests of Quercus Garryana - the trunks standing as thickly and as regularly as stalks of corn in a corn field. These were on the north slope for 1½ mi on 2 mi along the road. There were Black Oak thickets of similar character. The Garryana was 6 to mostly 10 (or 12) ft. high. We made a big drop from Bells Spring to our camping place, coming down "Chemise Mt" - (not a very definite topographically, but covered with Adenostoma* - not pure by any means), Camped on a hog's back, with the water in a cañon 200 ft. down and

* A. fasciculatum H. & A.

Bell's Springs to

= 46.00 ft.

a fine large view over ridges eastward. The moon shone bright and lighted us to our bed chamber on the hard ground.

- Taxus brevifolia in bottom of cañon, at night camp
- We make a big drop on down to Harris, getting off the ridge. Before we started down we had a good view of many high long ridges to the northward, and especially of a fine mountain out toward the coast west of N.W.
- Tan Oak at Bell's Spring.
- From night camp we pass from ridge we have been traveling by low hog's back to somewhat lower paralel ridge. (3000 ft.)

About 1¼ mi. beyond night camp we pass Humboldt Co. line

Humboldt Co.

Harris, June 19, 1902

In 2 miles we find there is on wooded northerly slopes a preponderance 60% of tan oak - Goodwin's Ranch trees 60-80 ft. high and 1½ or 1¾ or 2 ft. diam.

In general however there is in the country about 25% of it covered with Douglas Spruce. The Tan Oak is found only where there is Douglas Spruce. About 3 to 6 % of this area is Tan Oak, perhaps more in some spots as noted above

- Eucharidium concinnum
- Ceanothus ~~spinosus~~ incanus, same as collected in Jackson Valley, - not collected here.
- Quercus Garryana continues abundant, especially young thickets of it.

No. 1879. Ceanothus integerrimus H. & A. Var. californicus (Kell.) Benson

Harris to Fort

=2100 ft-

Opposite Bells Spring there is a long ridge parallel to ours, the woods below, the chaparral running up on it pretty well, then suddenly stopping and a long rather narrow band of red-brown (naked of woody growth) above it; the band is horizontal of course. At summit we can see the oak woods begin on crest.

Near Harris Mr. G. took picture of a somewhat similar (but not so sharply defined as the picture) for the sake of a bunch of oaks following up a gully. The woods were Jeffreys, Douglas Spruce & Tan Oak below.

Seward Ridge, June 19, 1902.

From Harris we climb up on to a high and much more barren ridge than we have ever seen before. The country in general is less wooded. Have noted no Yellow Pine since leaving Bells Springs. Are Yellow Pine and Tan Oak ever found together?

This high ridge gives us the best view yet had of Hayfork Mountain (due east) and the Yolla Bollys and the high peaks south, sources of the Eel whose branches rainbow through the very broken and mountainous country beneath our eyes.

Harris to Fort Seward Ridge, June 19, 1902.

= 2100 ft.

Fine Tan Oak, with the patches of Douglas Spruce on north + East slopes. Probably reaches as far east as the Eel at Blocksburgh.

— Whirlwind came down the hill in the high grass, the grass tops knew not what to do with such a wind, so very capricious. Blowing all ways at once and suddenly hastening on without saying goodbye, leaving everything suddenly still that had been but a moment so violently agitated.

— A glorious day, full of sunshine.

— Cerastium arvense var (maximum ?) is abundant in the open woods — forming bright patches of white — See No. 1883.

Humboldt Co.

Mail Ridge.

= ? 3000 ft.

No. 1880. Erythronium californicum Purdy. In Spruce woods at camp on low ~~hogs back~~ saddle ridge connecting Bell's Spring ridge to Fort Seward Ranch ridge.

No. 1881. With preceding. Taxus brevifolia Bottom of canon by water.

No. 1882. Lotus, sericeus Lotus, on bud redd; in fl. nearly white or a little lilac-tinged. Harris ridge (See p. 26a.)

No. 1883. Caryophyllaceae. Stamens 10; Cerastium arvense L. var. maximum Holl. — Britt. styles 5; petals white, deeply notched; sharp slope, hill in open. Harris + Fort Seward Ranch ridge (avoided)

No. 1884. Lin-anthus androsaceus Greene. (Leptosiphon). Around Cahto this was pale pink; here it is crimson. With No. 1883.

No. 1885. Baeria " " "

No. 1886. Maul Oak, Fort Seward Ranch.

No. 1887. Acer macrophyllum Pursh. Has been common the whole distance, especially in cañons, but noticed on a rocky point.

No. 1888. Senecio integerrimus Nutt. var. major (Gray) Crong. Woods. Rays 12.

No. 1889. Ribes roezlii var. amictum.

Humboldt Co.

Fort Seward Ranch

? 3000 ft. Ridge

Camped last night at the mail-box gate of the Fort Seward Ranch - a ranch of 12,000 acres. North Yallo is the great landmark directly east of us. It is the high peak which we thought might be Hayfork Mt - but is the great North Yallo. Some information I got from a cow-puncher, a young sociably inclined fellow who came riding by just after our breakfast time. He had "ridden the Fort Seward ranch for 3 years" and "knew the whole damn country from stem to gudgeon". The furthest ridge eastward that is visible (this side of N. Yallo) is a timbered ridge. The Cowboy said there was Tan Oak "in there". Not much but he admitted there were trees there. He said there was a great deal on the lower buttes just east and north east.

T. albopurpureum T. & G.

= Mail Ridge.

June 20, 1902.

No. 1890. Sedum stenopetalum Pursh. ssp. radiatum (Wats.) Clausen. In soil on rocky points on open ridge. Fls. yellow.

No. 1891. Peucedanum dasycarpum var. medium Jepson. (T. & G.) - about 2/5 plant taken.

No. 1892. Trifolium ~~dichotomum~~

No. 1892A Leptotaenia Californica Nutt. Leaf looks different from the Vaca Mts. plant.

No. 1893. Cirsium occidentale (Carduus candidissimus Greene ?) Very white plants, the deep rich crimson flowers in striking contrast. An exceedingly handsome plant - 3-4 ft. high.

No. 1894. Trifolium Eriocephalum Nutt. Common on the Harris - Fort Seward Ranch ridge.

No. 1895. Ranunculus occidentalis Rattani. Petals 5, rarely 6. Open woods.

No. 1896. Phacelia heterophylla Pursh, form. Shade grown. Fls. dull white.

Humboldt Co.

Fort Seward Ranch Ridge.

= Mail Ridge. ? 3000 ft.

- The Poison Oak is everywhere - Redwood Belt or Interior Range - it makes no difference. It is in full abundant flower now along this ridge and the fragrance is very sweet and fills the air - almost as sweet as grape - Vine.
- Looking southwestward from high points on the ridge the whole country appears densely forested (mainly with Douglas Spruce. These are north and east slopes that are visible. Northward from here the country is not so thickly wooded as to the south.
The Humboldt Co line seems to mark a natural boundary.
To the south I should say 40 % of the country (~~inside~~

June 20, 1902.

from ~~towards~~ the ocean to stage line) was covered with "Douglas Spruce & Redwood". Perhaps the % is too low near the coast. About 5 % is Tan Oak. Northward 25 % of the area is Douglas Spruce and 3 % Tan Oak.
My Tan Oak is a proportion of the Douglas Spruce area. It is a bit high rather than low.
- One can look over the hills and pick out the Tan Oak even at some distance - on account of its differently colored foliage and the pointed tops to the trees - no other broad-leaved tree having such a top.
- Garrijana abundant on this ridge
- Quercus
- fine pole thickets covering considerable hillsides - 25 ~~[illegible]~~ old about

Humboldt Co.

Fort Seward Ranch Rid = Mail Ridge.

? 3000 ft.

– (Quercus Garryana, getting out of fl., aments falling, stamens 4.

– From our camp we can see the main Eel below us to the east, while the South Fork is visible on the west.

– The plaintive "baa" of the sheep sent me to sleep. Mr. G. spoke of the close imitation of the human vowel. But it seems to me the owl is closer with its "oo". Anyway there are no other animals that come so close to human sounds. I don't have seen sheep pass over hills as fair as these, grassy and flowery and leave them swept like a dirt door yard with nothing but Nannie Plume on the dusty surface.

Fort Seward Ranch Ridge.
= Mail Ridge.
Humboldt Co.

No. 1900. Lotus micranthus Bth.
No. 1901. Athysanus pusillus Greene.

No. 1904. Trifolium tridentatum Lindl.

No. 1908. Sedum spathulifolium Hook.

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No. 1897. Lotus humistratus Greene. Land slides
No. 1898. Trifolium microcephalum Ph. Open woods.
No. 1899. Trifolium albopurpureum " "
No. 1900. Lotus {Bud red; banner lilac-tinged. Keel + wings yellowish} Open hills. See p. 22 b.
No. 1901. brucifer. Open hills
No. 1902. Platystemon californicus Bth. " "
No. 1903. ~~Mentia~~ Claytonia spathulata Dougl. Petals white, with egg-yellow tips. Open hills. Also seen with circular and scarcely notched involucre. Stamens 5!
No. 1904. Trifolium trid. " ". Common
No. 1905. ~~Cryptanthe~~ (Plagiobothrys nothofulvus Gray) Stems widely spreading, & ascending. Open hill. Common - all along.
No. 1906. Ceanothus Parryi Trel. Hubbard's Station.
No. 1907. Z = Z. micranthus var. micranthus Jeps. Zygadenus venenosus Segments with entire gland-pit. - Hubbard's Station to Eel River.
No. 1908. Sedum spathulifolium Hook. - on a rocky point
No. 1909. Iris. South Fork Eel. Shade Redwoods
No. 1910. Phacelia - cliffs of Main Eel. Fls. pale blue. P. bolanderi Gray.

(= I. douglasiana Herbert.

Humboldt Co.

Hubbard's Station
≈ 2000 ft. alt.

- About 4 mi. to Stage Station (Hubbard's) from Fort Seward ranch mail-box; just below this the road runs into Douglas Spruce & San Oak timber with Oxalis Oregana, Scoliopus bigelovii and Salal (Gaultheria shallon) beneath; saw now Redwoods but they ought to be in bottom of cañon. Also Vaccinium ovatum Pk.
- Hubbard's Station - new stage station
- Olsen's Station - old station, about 1½ mi. below Hubbards.
- A man at noon camp (1½ mi. beyond Olsens) tells me that there are no redwoods east of this point on Main Eel River. One can look right down into the Eel Cañon from here but can not see the water. He says there are Redwoods in the other direct.

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a few miles away on South Fork, and that they continue all the way to Long Valley and Sherwoods.

- A "prairie" in Humboldt County is untimbered land on open whether it be flat or so steep you cannot walk up it. It is a peculiar use of the term and the use of it in this meaning is restricted to this part of California.
- Lasacki Peak is in plain view from here.
- The last part of the road down Eel River is very steep with very short turns. In about 4 mi we came to a solitary redwood and then in half a mile it was nearly all redwood - and big ones.

Humboldt Co.

Camp Grant to

Our first good view of the Eel was overlooking its sand and gravel bars from the high grade. Then we got down to the river and followed along it through a most magnificent grove of redwoods - the measurements of a few trees follow on the next page. Height 200 - 250 ft. On the stage the road was fine - - rarely a bad spot, but beneath the Redwoods the road was "hog-wallowy" and the travelling was very hard on horse, wagon and man. This fine Redwood grove lasted for about four miles. After passing Camp Grant we passed under the most elegant Bay Laurel grove that I ever saw - trees 10 ft. high & 20 ft. circ at 4 ft.

5

- Trifolium wormskyoldii Lehm. Cont: from p. 44. No. 1934.
- Lotus denticulatus Greene. Cont. from p. 17. No. 1882.
- Rhamnus californica Eschscholtz var. occidentalis Jepson. No. 1977. Cont. from p. 73.
- Lathyrus watsonii White. No. 2010. Cont. from p. 111.
- Sphaeralcea rivularis Torr. var. eismontana Jepson. No. 2127. Cont. from p. 170.

Humboldt Co., main Eel River.

Idlewild, June 20, 1902

- Ceanothus Parryi - as tall as 18 ft. in the redwoods.
- Tan Oak, 85 ft. high - 8 in. diam - in redwoods.
- Redwood & Douglas Spruce, 200 ft. high.
- Redwood tree, 32 ft. at 6 ft = good average tree of the larger size.
- Abies grandis - occurs here.
- Poison Oak, up & Redwood trunks 90 - 100 ft., - trunks very leafy, [with Poison Oak] one side, above, for about 30 ft.
- Redwood tree, down by Eel River, 41 ft at 6 ft. - imperfect by fire on one side.
- The Bay Laurel Grove at Camp Grant was a pure grove, for about 2 miles. Some of the trees were very straight and slender - and 80 - 100 ft high.

The finest Redwoods continued as far as Rio Del.

Idolwild and South Fork. Eel River
(Junction Main Eel River).

- California Maple tree near Camp Grant with ascending stump - 100 ft. high. (acer macrophyllum)
- Dogwood: Cornus Nuttallii, 45 ft. high, in Redwoods. Near Camp Grant.
- Redwood land rich, but hard to clear; stumps burnt with difficulty, - must be chopped out.
- River at South Fork full of Shingle Blocks - made from fallen logs.
- Redwood, South Fork, 41 ft. at 6½ ft - 220 ft. high.
- Large number of "3-leaved" plants on forest floor of the Redwoods: Achlys triphylla, Oxalis Oregana, Trillium ovatum*, Trientalis. Even the other plants have a very pronounced horizontal leaf relation

* Trillium ovatum - ovary incompletely partitioned, or rather a capsule examined.

Dyerville, June 20, 1902.
= 290 ft.

- Grove of young Douglas Spruce, between Hubbard's Station and Eel River, growing very thickly, 12-14 ft., their tops interlocked, growing rankly, the branches beneath dead (self-pruning) and below as dark as night, so thick the canopy.
- Populus trichocarpa - South Fork.
- Tan Oak, South Fork.
- Oxalis, in sleep, in sunlight, under Redwoods. = O. oregana Nutt.
- Ida May Firecracker fl., = pendulous perianth in fl., in fruit erect, i.e. the perianth. (Brodiaea ida-maia Greene)
- Went up the South Fork 7 miles "after Injuns", came back to Dyerville, which is the first town not a one-house town that we have struck. Stopped at Engelwood Prairie, a natural opening in the forest, for lunch.

Pepperwood, Humboldt Co.

– The Eel River is the greenest in color of any river that I ever saw. In fact I do not know that I ever saw a green river before.
– Fine grove of Bay Laurel at the settlement of Pepperwood. Pepperwood is the first considerable settlement that we have struck – there are (rather) prosperous but frontier-looking farms, the houses are mostly large – 2 story – but without taste in construction – altho the material used is good. We saw a church – the first we have seen since leaving Laytonville. A pretty girl with a bible in her hand was going down to the river with two or three children to learn the Sunday school lesson for the

June 21, 1902.

morrow. She stood by the fence, waiting for us to get past. Then she climbed over I have no doubt. Next we found a saloon – a patriarchial character was adjusting a pack-saddle on a horse. I drew rein. He offered to trade which led to further conversation. "Do you want to learn?" "No." Have you heard of anybody down at Ukiah by the name of Applegrove? I thought he was chaffing and remembered the small boys Flynnpathcreek. But he was serious. His wife and 5 children he is trying to locate and if he can hear of them he will send the tin. He gave us lots of moral advice. Do as much good to others as you can and you will be happy. I'd give that dog pie if it would make it happier. If you want to make hogs happy feed em cherries

Pepperwood

soaked in whiskey". We interpreted his story for ourselves. His wife left him Because he drank and swore too much (His name is John Upthegrove, Pepperwood. The family left 7 years ago. He has a good figure and good regular rather strong features).

– Between Englewood and Pepperwood we passed a mt. stream. Above the bridge a redwood had fallen across the stream, making a horizontal foot bridge. At intervals of 5 ft a shiny sapling-like branch had started up and grown 6 to 10 ft each. The effect was very striking. The stream was of the usual type, water flowing over rocks, leafy banks – typical redwood stream.

June 21, 1902.

June 22, 1902.

Being Sunday we remained in camp all day at the Redwoods at the end of the Pepperwood settlement.

– The Pepperwood grove is a very fine one – trees 120 ft. high I should judge, certainly 100 ft. high. The forest is a fine one, and abuts ~~against~~ the Redwood forest which comes to the foot of the hill, the Laurels being in the level and next to the river.

Pepperwood, Humboldt Co.

-Across the river the hills have been logged and black masts and fallen logs lie over the dead slopes. The Scotia company's railroad has reached a point opposite.

— Typical Redwood plants:

This is the Redwood region in all its glory. The herbaceous carpet shows a most distinct light-relation. Oxalis leaflets under the Redwood canopy, oregana (which is close to 250 ft. high) are strictly horizontal. In openings where direct sunlight strikes them they fold down on their midribs paraselike in a most wonderful way. Most leaves of all species take a horizontal position. Petasites is here, on banks; also Berberis nervosa, Achlys triphylla, Disteigia involu-

June 22, 1902.

crata, Prosartes, Clintonia Andrewsiana, menziesii, Adenocaulon bicolor, its leaves displaying light-rosette habit. Heuchera micrantha, 3 ft. high. Scoliopus Bigelovii Torr.

No. 1910 A. Clintonia Andrewsiana. "Berries" blue like "bluing-balls".

- Oxalis Oregana - fls. pink.
- Vancouveria hexandra, No. 1912. Seeds 5-7. Sepals and petals nearly white, reflexed; sepals obovate, petals narrowly linear, with strongly hooded at tip, shorter than the sepals. Pedicels hanging. Pod 4-celled, dehiscent by a valve opposite the placental rib, that is contrary to what one might expect, the valve which falls away is somewhat smaller than the persistent part which bears on its (cont.)

Pepperwood

- No King ever had such a royal bed-chamber as we here, its canopy 250 ft. in the air, its columns so high that they seem to converge, its roominess and ventilation unsurpassed.

Cont! from previous p. 35. inner (concave) face the placenta and at summit the style.

Ferns growing over logs and trees everywhere, Oxalis oregana covering stump cuts, Sequoia seedlings on top of cut stumps, Poison Ivy* climbing skyward up trunks and lighting up the scene with its pale green, - This is the Redwoods!

* = Rhus diversiloba. A slip for Poison Oak.

- Hazel 20 ft. high! Euonymus occid. in fl! 18 ft. high. = (Corylus rostrata californica)

Humboldt Co.

June 22, 1902.

No. 1911. Galium. Trailing over forest floor, beneath Redwoods; perennial.

No. 1912. Vancouveria hexandra Morr. + Dec. See note 2 pp. (p. 35) back. Beneath redwoods.

No. 1913. Anemone deltoidea Hook. Beneath redwoods.

- Ditches made by fallen redwoods.

- Vancouveria parviflora; petals not so narrow as in hexandra, recurved but not lying back, in close, against sepals, notched with a tooth in the notch, each lobed yellow-tipped and incurving or downcurving. - No spms. taken but same as taken before. Seeds 2.

- No. 1914. Tiarella unifoliata Hook. Redwoods - leaves in rosette arrangement as to light.

No. 1915. Vine Maple - 20 ft. high. Near Rio Del.

Pepperwood to

To day (Sunday) we drove to Eureka, 35 mi. When once we crossed the Eel river by ferry just beyond Scotia and Rio Del, towns were thick and the whole country seemed to be divided up into small lots. The great mill and lumber camp of Scotia was on the opposite side of the river from the wagon road - we had a good view of it from the grade. It was the obvious centre of destructive desolation. The towns and the farms of the Eel River valley are prosperous and are improving rapidly but the improvements have the frontier look decidedly. Lumber is cheap and there are large two-story houses everywhere - painfully plain and common in their barrenness and nakedness, not one redeeming feature in board, door or window in the building of them.

Fortuna, June 23. 1902

- Hypochaeris glabra was common in Sherwood valley and through all the fields to Cahto and Long valley. I did not collect specimens. It has very narrow flowering heads - 4 or 5 or 6 lines broad. H. radicata, near Fortuna, has flowering heads 1½ in. broad and is clearly established along the railway track of the Eel River R.R. From here on, we meet it constantly. From Loleta to Eureka and Korbel the pasture and hay fields are yellow with it! The Ox Eye Daisy was over-running other fields, and the White Clover, Trifolium repens L. was abundant everywhere; we noticed it especially along roadsides but it was in the fields as well. Now and then, with the Red Clover, T. pratense L.

Fortuna to Eureka

- Vegetation is rank and along the fence-lines wild hedges of Rose, herbaceous stuff and the beautiful Azalea occid- have sprung up like mad. It is, moreover a land of dairy cattle and creameries. It is so near the ocean that the fog and rain keeps things green all the year.
- No. 1916. Azalea occidentalis, Loleta
- No. 1917. Carex triquetra Boott. Det. K.K.M.
- No. 1917a. Malus ~~[illegible]~~ fusca (Raf.) C. K. Schneid. Fortuna to Loleta.
- Sitka Spruces were seen between Loleta and Eureka and were frequent as far at least as half-way to Korbel.
- Abies grandis, Eureka to Korbel and half-way to Angels Ranch. Trees on the mt side; 1000 ft. elevation at least. Trees 150 ft. high. = Pyrus diversifolia Bong.
- Sitka Spruce trees 175, perhaps 200, ft. high.

June 23, 1902.

- No. 1918. Digitalis purpurea L. Foxglove. Near Eureka. (Abundant near foot of grade, coming down to the Eel from Hubbard's Station. Also noted near Jas. Clarkes, Calito.)
- Black Cottonwood, P. trichocarpa, 115 ft. h.
- Clearing out of the forest has given annual and perennial herbs a great chance. I never saw such before such thickets of Cnicus edulis (6-7 ft. h.) as were in the clearing. Bull Thistle is common and Canada Thistle is coming in freely (a small headed thistle, the smallest I have ever seen.
- No. 1919. Orthocarpus faucibarbatus Gray. Fls. white; common in Eureka fields.
- No. 1920. Nuphar polyrepalum Engelm. Pond near Arcata full of it. Stigmatic rays 15-20. Petioles 3 ft. long. Fls. yellow, aging reddish - the concave sepals looking like fall apples (in color)

Humboldt Co.

Eureka to Arcata, June 24, 1902

No. 1921. Veronica scutellata L. Eureka to Arcata.
Fls. pale blue.

No. 1922. Lotus formosissimus Banner; crimson-lilac & Keel wings. yellow; very handsome.

No. 1923. Trifolium procumbens L. Eureka to Arcata

No. 1924. Spiraea douglasii Hook. " " "

No. 1925. Skunk Cabbage (Lysichiton Kamtschatkensis (L.) Schott. Eureka.

No. 1926. Vaccinium parvifolium. 3 or 4 ft. high; berries red, nearly inclined enough to be bright scarlet! Pleasant flavor.

Korbel to Angels Ranch

No. 1927, Lupinus polyphyllus. Eureka to Arcata. 3-4 ft. h. Racemes rarely less than 1 ft. long.

Arcata is the prettiest cleanest most well-kept up-to-date town that we (like it - it has no "Palace Hotel") have seen. Thence we went on to Blue Lake (crossing Mad Run - by a bridge - on the way) and to Korbel on the North Fork - camp for the night.

Arcata to Korbel, June 24, 1902.

No. 1928. Ceanothus thyrsiflorus Esch. Fine clumps & trees, 18 ft. high (but still looking like shrubs - mt. side, between Korbel and summit; on road to Redwood Creek. Higher up, in full bloom.

No. No 1928. Sidalcea malachroides Gray, 2 to 4 ft. high; fls. white, petals broadly notched; petals broad, abruptly clawed. Above Korbel - Douglas Spruce & Abies grandis forest & Redwood. - Korbel to Angels Ranch

No. 1930. Lathyrus polyphyllus Nutt. Banner purplish, wings blush, keel white. Banner veined. Fls deflexed after anthesis.

No. 1931, Marah oreganus (T. & G.) Howell Korbel to Angels Ranch. Echinocystis See note next p. Pod with weak spines except at the apex.

No. 1932. Rhamnus Purshiana DC. up to 18 ft. in height. Berries reddish (not full grown); also in fl. Sepals with winged midrib on inside. Petals notched

Korbel to Angel's Ranch, June 25.

enfolding an anther and looking like the hood of a Milkweed; in anthesis spreading a bit and releasing the anther. Petals very small, as broad as or broader than long. Korbel to Angel's Ranch.

No. 1933. Geranium (molle L.), Corolla red-purple.

– Claytonia Sibirica, – mountain sides up to 2000 ft. under Redwood, Spruce, etc.

No. 1934. Trifolium Wormskjoldii Lehm. – Korbel to Angel's Ranch. See p. 26a.

No. 1935. Senecio – 5 ft. tall. Spruce (Douglas) forest.

No. 1936. Sherardia arvensis. common. – above Korbel.

– Echinocystis Marah Cogn. #1931. (= E. oregona Cogn.) Erechtites argota. 1935

Pods 6-seeded. Climbing freely over bushes and thickets and spangling with white the background of green. The long racemes of fls. stand erect and are so numerous as to give a gala-appearance to the field of green foliage. Very common on the coast at Eureka. Coll. near Blue Lake.

See prev. page.

Humboldt Co.

Angel's Ranch, Acorn, Redwood Creek, June 25.

– Chestnut (Castanopsis chrysophylla) on Trinity Road, beyond Green Point Ranch. Tan Oak, from Eureka to Redwood Creek.

No. 1937. Lathyrus Torreyi Gray. Banner lilac; keel & wings white. Near Acorn postoffice.

No. 1938. Delphinium Menziesii. Flowers of the D. variegatum blue. Upper petals white. Pods of follicles spreading widely and very conspicuous. One would never hesitate an instant in proclaiming this Menziesii. Plants 4 ft. high. Two plants noticed with red flowers! Note for teratological index. The leaves are thick, very deep rich green above, much lighter beneath. Douglas Spruce woods, opens, near Acorn post-office. Terminal raceme with supplementary axillary racemes as shown by series of specimens.

Green Point Ranch, Redwood

No. 1939. Senecio integerrimus Nutt. var. major (Gray) Nutt. Douglas Spruce forest, near Green Point Ranch

No. 1940. Heterocodon variflorum. One fl. with 6-merous corolla! Note for teratological index. (Corollas blue 4½ – 5 lines long.)

No. 1941. Floerkea Douglasii Baill. Fls. white, schizocarps smooth, at least when plump and full-grown, afterwards blackening and falling, (and then becoming wrinkled?) Note the long naked deflexed peduncles. Sandy gravel bank, Redwood Creek.

No. 1942. Scorzonella. Leaves subentire or laciniate-pinnatifid; heads bright-yellow, 1 – 1½ in. broad, Mixed woods, Douglas Spruce and Black Oak.

Creek, June 25, 1902
Humboldt Co.

– Naturalized plants at Redwood Creek: An old Indian is giving Mr. Goddard the names of plants in his tongue. He has a name for the Yarrow (Achillea Millefolium) and for Anthemis Cotula! But he rejected Sisymbrium officinale and Capsella bursa-pastoris as White Man's weeds. "When White Man come he [Napa Thistle] come plenty".

~~No. 1942 A. Black Oak.~~

No. 1943. Navarretia intertexta Hook. Fls. white. Opens in Mixed Forest, Douglas Spruce, Black Oak, Madrone, Tan Oak.

– We have not seen a Maul Oak since leaving the Fort Seward ridge.

– Madronas – now putting forth erect new shoots, the old leaves hanging in a bunch below – giving a over-seasonal aspect to the whole tree

Redwood Creek,

Humboldt Co.

Madrona cont.

The scales are homologous with leaf-bud blades. The foliage leaves are convolute in the bud, on expansion become plane and soon revolute! all this before half-grown! The scales of the winter bud are large - the largest being over one and one-half inches in length.

- Orthocarpus lithospermoides, 20 in. high. Excellent illustration of variation in height due to crowding of grasses, etc

- Plantago lanceolata and Brunella vulgaris - here (and everywhere else in these remotest districts.

June 26, 1902.

No. 1944. Lotus stipularis Greene (var. subglaber OH) *

Flowers pink, with deeper pink veins running out to the white margins. Banner slightly longer than wings - much longer than the hood-shaped keel. Keel connivent with wings very decidedly. Rootstock horizontal long and not thick, running among the tangle of Gaultheria, Rubus, etc and sending up a shoot at intervals from a caudex.

- Oxalis Oregana, nearly white corolla, with pinkish veins and 5 yellow spots towards base.

* = L. aboriginum Jepson.

Redwood Creek, Humboldt Co.
Berry's ranch, Hupa road,

No 1945. Corallorhiza. Lip white, with purple dots, 2 small acutish lateral lobes, middle lobe with 2 ridges down palate; sepals 3, the upper very small; petals dull but dotted with purple; style broad and flattish, only slightly incurved, a round stigmatic slightly depressed area just beneath the summit.

- There are four trees in this (N. Coast Range) region which form circles of new trees about an old stump; first, notably, the Redwood, the Tan Oak - also very marked, the Madroña - good examples sometimes seen, and the Bay Laurel - often noticed.

June 27, 1902

No. 1946. (Hypopitys lanuginosa Nutt., not Monotropa Limbriata (Howell).* Flowers white; petals none; sepals 5, sometimes 3 or 4, stamens 6 when sepals 3; doubtless twice the number of sepals. Stigma large, yellow. Ovary 6-celled. Sepals hairy on inside. Fils. hairy [- Stamens 8 when sepals 5. - Ovary 7-celled]. Try a few more flowers to get variations. See note p. 57, ahead. Green Pt. Ranch to Acorn.

- Tan Oak, 13 ft. circ. at 5 ft; 65 ft. high.

- Madroña, 90 ft. h., straight limbs, branches and branchlets erect, simulating some Pinus Sabiniana tops.

* really petals. See p. 57 at bottom.

Redwood Creek

at Berry's ranch, Hupa road, Humboldt Co

No. 1947. Corallorhiza maculata Raf.
Sepals & petals alike, brown, but petals smaller - not marked. Ridge, Green Point Ranch to Scorn, as also next.

No. 1948. Corallorhiza mertensiana Bong.
Spike livid-purple - Upper sepal erect, the two petals covered by it so closely that the three organs look like one. Lower sepals turned downward and diverging, Lip recurving. All parts brownish except lip which is of slightly deeper purple than spike. Lip with a small sharp tooth on each side toward base. Lip erosulate slightly at apex. Not worthy

June 28, 1902

of mention in a flora diagnosis. Ridges rather prominent.

- Under Douglas Spruce forest is a dense growth of Salal, Berberis nervosa Pursh, Pteris aquilina, Achlys triphylla DC.

- No. 1949. Ceanothus velutinus Dougl. var. laevigatus T. & G.
Abundant on high ridges - Scorn P.O. to Green Point Ranch. averaging 8 or 9 ft. high.

- Bumble Bee & Salal - bee hanging on to the pendulous corollas by his "toe-nails", clasping the short recurved corolla lobes or teeth!

- The Indians here use as medicines: Ceanothus integerrimus - for good luck in hunting deer; Manzanita in the sweat houses; Maple and Lawson Cypress, to get rich or bring riches. The Maple is a worthy tree for such a purpose. It is so

Redwood Creek

Berry's ranch, Hupa road, n. Humboldt Co.

regal in its foliage. The airy aristocratic lightness of young trees in the softwood forest is remarkable. - the broad leaves (1 ft. broad plus) held aloft horizontally to the light on the slender petioles with such ease and grace - almost as if nothing supported them.

- Two churches in Hupa, says Mr. Goddard: Episcopalian & Presbyterian. Yet there is not one church at Orleans Bar, or Weitspeck or Requa where there are more whites and Indians. The Indians, in Hupa, say of the churches: "One say one way; one say another way. Indian don't know what to do. Guess he keep to Old Indians way. Very good for him."

June 29, 1902.

- Mr. Goddard tells me that the Indian God was also a lustful god, his misdoings being used to warn the young men and maidens against doing certain things. If one expresses surprise that the Indian God should have such attributes - why they shrug their shoulders and apologize slightly and say: Yes, he pretty bad; - alle same Captain Darrity - [One of Uncle Sam's officers who commanded a company of troops in charge of the Reservation and who outraged so many Indian women.]

No. 1950. Smilacina racemosa var amplexicaulis Nutt. Forest of Douglas Spruce.

No. 1951. Claytonia Sibirica. Flowers white, with pink veins. Petals notched.

Redwood Creek

Berry's ranch, Hupa road, n. Humboldt Co.

Douglas Spruce Forest, Acorn P.O. to Green Point Ranch — also all the way back to Eureka and through the Redwoods to Engelwood Prairie.

-Today is Sunday. We had trout for breakfast — presented to us by "our friend" Judge McDowell who stopped here over night and who is teaming into Willow creek at which place he is the Justice of the Peace.

No. 1952. Gaultheria Shallon. Abundant under Douglas Spruce forest, Acorn P.O. and back to coast. Green Point Ranch &

No. 1953. Arctostaphylos tomentosa columbiana Piper Lind.

No. 1954. Same but not so bristly. Both in Douglas Spruce forest, 5 ft. high.

These two numbers, ridge from Green Point Ranch to Acorn.

June 29, 1902.

No. 1955. Wyethia angustifolia Nutt. In opens near Green Point Ranch.

No. 1956. Black Oak. Near " " "

- Monotropa Hypopithys, No. 1946, see p. 51.

Petals present, 3, 4, 5 (especially terminal); sepals 2, 3, 4, much narrower than petals. [E.g.:- Petals 4; sepals 4; stamens 9] Ovary with 8 short hairy teeth at base, turned down over disk. Bracts, sepals and petals at most erosulate. Style thick, hairy just below the umbilicate stigma. Petals with gibbous nectary at base. [Another fl:- Petals 4, spatulate-oblong; sepals 2; stamens 7!] When there are two sepals only they are lateral — in just the position of bracteoles and such I took them to be in the first place; when there

Redwood Creek,

at Berry's ranch, Hupa road, Humboldt Co.

are three the third is in front, and the fourth is behind when there are four. The lateral sepals are not hairy. [Another fl: Sepals 3; petals 4, stamens 8.] Ovary with a purplish disk at base. Stamens hairy except at very base.

No. 1946.

Monotropa (Hypopitys) ?

Fleshy white Saprophytes, with turning brown in age, the scaly stem rising from a matted ball of "roots". Flowers several in a bracted spike. Sepals 2 and lateral, or with a third one in front, or a fourth behind. Petals 3 to 5, spatulate - oblong, Stamens 6 to 10, usually twice the number of petals. Filaments hairy, about 6 or 7 - celled, with a purplish disk at base bearing 6 - 10 teeth (deflexed.

June 29, 1902.

Style columnar, expanding at summit into an umbilicate stigma. ~~Flora~~

Fruit

M. fimbriata Gray. Three - 5 inches high; bracts and sepals at most crenulate; bracts obovate - cuneate.

Under Douglas Spruce. - Acorn P.O. to Green Point Ranch.

Or it may be M. Hypopitys L! - The Redwood Hotel is an inviting wayside inn kept by a Mr. Charlie Berry who hails from Vermont. He says there are 10,000 cords of Tan Oak on the Trinity - untouched. Last year he got $12.25 per cord for his bark at the Arcata Tannery - 28 1/4 cards. The highest price he had ever received. The bark is sold by measure - by the cord - a card being 8 ft. long, 4 ft. wide

Redwood Creek,

at Berry's ranch, Hupa road, Humboldt Co.

and 4 ½ ft. high. The extra half foot is to compensate for the "holes." When a slab of bark is taken from a 2 ft. tree it will soon curl up, leaving a great hole in the center. If this would stay so it would be fine stuff to card - from the standpoint, of course, of the man who is getting out the bark to sell. But by the time it is sledded down the hill and thrown off the load and jammed around it breaks into narrow longitudinally pieces which lie very flat and so a great deal of fine cuts will go a very little way in making a cord. If the cutter is on to his business, as soon as he takes

June 29, 1902.

off such a cut he will divide it into pieces (with his axe) 1 ft. wide; these curl up and form a piece which is fine for carding (still from the standpoint of the seller) and will stand the wear and tear of handling. The buyers make the cutters pile the bark ten tiers high; by the time the loader gets back with another load he finds that his 9 ft. has settled and so he has to build it up again by adding a little to the top to bring it up. Tanbark has been cut in this country for 25 yrs - they were cutting 25 yrs ago at North Fork (Korbel). There is not much Tan Oak left - none at all

Redwood Creek

at Berry's ranch, Hupa road, Humboldt Co.

near the roads - one has to go away back. What there is, is in rough cañons where it cannot be gotten out - at least to make anything. - All of which says Mr. Berry.

Tan Oak will be cut when the price is so low that the man will only make wages. A loaded team can get from here to Korbel - the nearest railway station in a day - back in a day. The round trip thus requires two days.

Osmaronia cerasiformis

- I never saw Oso-Berry fruiting so abundantly as here - the black cherries hang thickly on the bushes - and when gathered look like a handful of Malvaricia grapes - only if one look closely there is the drupe crease down one side.

June 29, 1902.

- An old-time Indian came into camp this morning at Breakfast time. He was very anxious to tell Tchi-hol-ski to Mr. Goddard. The Hupa people are not his friends - not friends of the Redwood Indians. Mr. G. spoke of certain Hupas as fine people. Yes, he admitted, fine people sometime not friends!

He wanted very much to sell me a fine stick or baton which he carried - made from Bay Laurel Root and carved spirally curiously, the spiral single - now big, now little. $2.50 he said. I said that I was not old enough to carry cane. Old men like him carried cane. Oh, he said, young sometime carry him - carry him for nothing! Evidently he was on to the modern dandy! Failing in his

Redwood Creek.

at Berry's ranch, Hupa road, Humboldt Co.

attempt to sell me his cane he then wanted to sell me Indian girl for wife - some $50.00, some $60.00, some $40.00. Yes some $80.00. He take me and show me. All virgins ["never slept with"].

He mourned the passing of the Indian - soon no more, no more dances, no more ceremonials, no more Indian. Just half-breeds now.

Mr. Goddard is of old New England ancestry and yet he says he feels no repugnance at mating of White & Indian compared with mating of White and Negro. And this from a New Englander!

As to the Indian girl for wife, Mr. G. said Dr. J did not like women. "Oh, well, Indian woman work around - do work just same. You got food, she do work!"

June 30, 1902.

- On the ridge between Angel's Ranch and Green Point Ranch noticed several small trees (5-6 ft. h.) of Castanopsis (~~sempervirens~~ chrysophylla. They were erect tree-like forms with the foliage of the large trees seen near Willets - and not bushy nor foliaged like C. ~~chrysophylla~~ sempervirens.

- A foreigner, German, came by our camp just now. He looked wonderingly at my driers spread out on the ground to dry. "What are those"? "What are they for"? "Do not understand". "Oh, for medicine."

- No, not for medicine. To study. "Do not understand". - To study scientifically, find out all about them. - "Don't know. Well (pityingly) they's lots of notions I don't ~~under~~ know about!" But the Indian! Ah, the Indian.

Redwood Creek

at Berry's ranch, Hupa road, Humboldt Co.

Mr. Goddard explains to them that I collect [get] everything, tree, shrub, grass, etc – and they understand for the plants are to them very important, material for houses, dress, food, medicine, religious observances, good-luck and to use in every ceremony relating to the spiritual nature.

No. 1957. Galium – Douglas Spruce woods.

No. 1958. Saxifraga peltata, Torr. Clumps about 4 ft. high. grows on gravel bank by side of swiftly-flowing water of Redwood Creek. Leaves 19 in. across down to 15 or 16. Pods empty. Carpels distinct, boat-like, the boats broad and with the edge much turned in horizontally

June 30, 1902.

to prevent shipping of water. Petioles scabrous. Leaves as tall as flowering stalks. Rootstocks flat but thick, spreading over the surface of the cobblestone gravel and holding it in place, branching dichotomously, dying off behind – so that eventually one clump may become two. An old-time Indian said his tribe used the fleshy petioles for food. Rootstocks very much scarred with leaf-bases and flowering stalk bases. The flowering stalk is terminal. Two lateral buds start each side and carry on the growth. These send up only leaves for a year or so. Rootstock 1-1¼ in. thick, 1-2 in wide.

No. 1959. Umbellifer. 6 ft. h. Fls. white Woods of Spruce (Douglas). Ligusticum apiodorum C. & R.

Redwood Creek

at Berry's ranch, Hupa road, Humboldt Co.

- Buck got loose one night and we had a short hunt for him. The people who despised the half-witted boy laughed at him when he said he could find the horses. This is how he did it: I thought what I would do if I were a horse. I would go down to the flat and eat the fine grass. So I went down. And I lay there quite awhile. And when I was full of grass, I thought what I would do if I were a horse. I would go down to the river and get a drink. And so I did. And then I thought if I were a horse what would I do. I would go up among the pines where there are no flies. And so I went up the ridge to the pines — and there were the horses! — This is Mr. Goddard's story —

June 30, 1902.

No. 1960. Hookera coronaria. Segments campanulate-recurving; staminodia not closing throat; anthers with a narrow and rather deep notch at apex, sagittate at base; staminodia equalling or a trifle longer than anthers, entire, mucronulate. - The Indians, here, use Oso Berries - the ripe drupes - for a physic - i.e. cathartic or purgative.

No. 1961. Montia parvifolia (Moc) Greene. Corolla nearly white! just a faint tinge of pink, yet hardly pink. Petals equal! slightly emarginate or retuse, lines long; stamens 5! (See next p.)

- One old Indian: "We can no go July" - No horse, to get to Hupa; to old to walk. There is only one day in the month to the Indians - the Fourth of July - which they call "July".

Redwood Creek,
(at Berry's ranch) Humboldt Co.

- No. 1962. Silene californica growing up through Black Oak, Poison Oak bush, 44 in. high! See note below
- Montia parifolia, No. 1961, nothing to indicate perennial character. I should say it were annual clearly. Bulblets (and many of them) form in axil of reduced leaves of whip-like flowering stems, consisting of two very fleshy and small leaves. Grows on mossy surface of rock.
- No. 1963. Daucus pusillus Michx. See back l/p.
- No. 1964. Philadelphus - 10 ft. high. Very showy and abundant along the creeks. P. lewisii Pursh var. gordonianus Jepson
- Silene californica, No 1962, very showy, raising its crimson flowers above the rank dry brown grass
- No. 1964A. Philadelphus canes. Same sp.

July 1, 1902

- No. 1965. Rubus vitifolius C.&S. Leaves from trailing new shoot or "cane". Canes erect at first, but slender and weak, soon reclining or trailing. Fruits ½ in. high.
- Typical Rhamnus Purshiana here.
- No. 1966. Micromeria Douglasii Bth. = Satureia douglasii
Corolla white; lips equal in length, upper (erect) notched, lower 3-lobed, the lobes diverging; lower pair of stamens longer than the upper; pedicels with 2 subulate (small) bractlets at middle. Tube pubescent inside (short) and outside.
- No. 1967. Madia dissitiflora. Woods gracilis (Smith) Keck
- No. 1968. Yarrow - Woods. A. borealis californica
- No. 1969. Scutellaria - roots stocks running - very slender. Fls. blue. S. antirrhinoides Bth.
- Fragaria californica - fruits pendulous on peduncles. Steep mt. sides under trees & shrubs.

Redwood Creek

at Berry's ranch, Hupa road, n. Humboldt Co.

Mr. Berry says the worst part of the Indian is his devotion to the "Oh, Let us be joyful".

No. 1970. ~~Godetia~~ Clarkia amoena. Corolla with or without crimson spot on the light crimson petals. Open hillside*

No. 1971. Godetia quadrivulnera. Stigma-lobes oblong, purple. Petals Sidalcea color to crimson, with or without a spot at apex, mostly with. This is the very type of quadrivulnera of Jepson of the Field – the ovary terete with 8 ribs, Calyx-lobes turned aside in pairs (reflexed). – See next p.

* Calyx-lobes turned aside in one piece, Corolla lilac-crimson. Stigmas linear (narrowly), whitish. Petals 1½ in. long. Longer set of anthers ½ in. long when the anther opens. Crimson spot sometimes on outside and not on inside of petals. Mr. G. took Indian name for this. Use seeds food

July 1, 1902

– Godetia quadrivulnera, no. 1971, – sometimes reflexed calyx-lobes all distinct.

– The Indians here distinguish between Black Oak & Garryana Oak. Mr. G. took the Indian (Redwood tribe) names for them.

No. 1972. Ribes sanguineum var. glutinosum ~~2~~. Comm.

No. 1973. Fragaria californica C. & S. See note 2p back.

No. 1974. Oso Berry. Branch woods. Vent to ground with weight of the fruits. (Osmaronia cerasiformis Greene.

No. 1975. ~~Madia luzulaefolia~~ Fls white. Open hill. Hemizonia tracyi (Babc. & Hall) Keck

– Godetia qudrivulnera & amoena = Sā-ho-ten. Redwood Tribe uses seeds for food. The former is by far the more abundant.

No. 1976 Linum micranthum Gray. Three Creeks to Willow Creek, July 2. In brushy open in forest.

No. 1977. Rhamnus. See p. 26a. Bush 5-6 ft. h. With #1976.

No. 1978. Allium bolanderi. Flowers white. With #1976

– see over –

Three Creeks to

Allium bolandari var. stenanthum Jepson.
– Rained a bit last night. This morning we climbed the divide to Hupa – the south grade was of the usual sort winding up to a high ridge, past clumps of Black and Garry and Oak and Douglas Spruce with beautiful open the grass just turning, delightful shades of brown and red, tawny areas as lovely as smooth, as even as the fur on an animal! And the dark green of the oaks encircling the brown. Near the crest of the ridge a fine thin line of Black Oak ran out along the ridge. It would have made a fine picture, but for my camera but for the cloudy sky. Now, it began to rain – and continued slowly softly all day. We

Hupa, July 2, 1902

along the ridge we passed through a fine Douglas Spruce forest with Madrona intermixed; coming down into Three Creeks (where we built a fire and had for ourselves a hot lunch) I saw an Incense Cedar. Then we came soon to Yellow Pine – not seen since leaving the high ridges of Mendocino. There were few trees along the streams in the deep cañons. There were many more Incense Cedars and also Lawson's Cypresses. – Passed Chinese Flat (Willow Creek) and Judge McDowell's place (who had a fine garden of small vegetables) and then over a headland projecting into the river and down into Hupa Valley itself. We are on the reservation and all the places are Hupa ranches.

Hupa Indian Reservation

- Holodiscus - panicles nodding - now in fl.
- "The wind is in the south, in 3 days there will be rain" = Mr. G.
- Fine trees at Camp Gaston - fine Madrona's, fine Maul Oak, fine Tan Oak - all on or near school campus
- Tan Oak, by Brizard's store, 40 ft. high, 2 ft diam. longest way at 2 ft. - taken by Mr. Goddard.
- Maul Oak, by Tennis Court, 55 ft. high, taken by Mr. Goddard, very symmetrical

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No. 1979. Lotus. Fls. uniform yellow. L. douglasii Greene var. congestus Ott. With # 1976, Stems decumbent Herbage whitish in the field.
No. 1980. Eriophyllum. Landslide. Fls. very large and show. Redwood Creek to Three Creeks.

July 3, 1902

- Old Capt. John of the Hupas is a distinguished looking old beggar. He'll touch you for 2 bits if you give him a chance.
- One old man said he had cut 13 cords of wood at $4.00 per cord for the school. He had his own philosophy concerning Indian Agents. "White man think Rough Man good for Indian. Indian do not think so. Indian think Rough Man good for White Man - Indian want kind good White man for Reservation." Rough Man = knock them around & put them in jail.
- An Indian woman with two children met Mr. G., soon burst into tears; - she had lost her little girl since she saw him last.
- Jim Marshall is planning to move to Blue Lake that his children may avoid the immorality of the

Hupa Indian Reservation

Indian School. As long as he stops on the Reservation the Agent will send police and take his children.
– Maul Oak near Campbell Field, 18 ft 2 in at 4 ½ ft., 80 ft high the spread of limbs greater than height!

No. 1981. Galium parisiense L. Erect: annual: herbage grayish-brown – abundant on the valley level – fruits grayish, at length dark. Hupa
No. 1982. ~~Godetia~~ Clarkia purpurea ssp. quadrivulnera. Hupa
No. 1983. Calycadenia. Rays white, deeply 3-lobed. Hupa valley level, dry land.
No. 1984. Hypericum perforatum L. Stems strictly erect, forming bunches, often covering acres on the valley level; also noted on the lower slopes near valley level. Hupa Valley. Fls. yellow. Stams in 3 sets (very plain); 19–27 in. a set.

, Humboldt Co.

July 4, 1902.

– After a while, sometime, Bob got tired of his wife, she always sick, no work, no work, Bob get tired. So Bob take her back to her father. After a while, some more, Bob's wife die. After a while, Bob want to be friends with Pete. (Bob wants to marry again and he can't do it unless he be friends with Pete – that is Indian Law.) Now Pete hear of this and Pete say to Mr. Goddard, the White Missionary, "I hear Bob want to be friends again. I wish you see him." So Mr. G. go to Bob. "Yes, he want to be friends." Mr. G. go to Pete. "No, he won't be friends unless

Bout. from prev. page: Petals ½ in. long, black-dotted on one ~~side~~ edge toward apex (the oblique side).

Hoopa Indian Reservation

Bot pay. Bob did him wrong. He won't be friends unless Bob pay. That is Indian Law." So Mr. G. go to Bob. Bob say "I got no money. Can't pay." Well, sell something. Haven't you got something to sell, said Mr. G. No. said Bob, have nothing to sell. What can you give him. Anything to give him? "Got horse, He can have horse" So mr. G. went to Pete and described the horse. After much argument Pete agreed to take the horse and a meeting at Brizards store was arranged for. Sure enough at the appointed time came Pete as well as Bob, Bob leading his horse. The horse was

July 5, 1902.

a sorry-looking creature, what the White Man would describe as a scarecrow, regular crow-bait. Well, they shook hands and Pete took the horse. As Pete led the horse away, Bob said: You watch out Pete, when he get fat, he might kick you!"

— The curse of the Indian is the White Man's whiskey. While now is sold on the Reservation it is smuggled in and they go to Willow Creek and buy it freely. If the Indian could be kept away from whiskey he would be nearer making progress than now according to White Man's idea. The Indian does not see why if the White Man is all right he should not be followed in all things. One Indian came into camp. He belongs to the Indian Court. So, he did not want to go to S.F. In S.F. there is a Whiskey Place on every corner and sometimes 2 or 3 in between. How could an Indian be expected to escape all that? If he pass one place there are so many more!

Hupa to Willow Creek and

- Broke camp at 3:00 and drove to Willow Creek. There I saw a Notary and took Oath of Office as Collaborator in California to Bureau of Forestry. From Willow Creek (China Flat) we passed along a good road under a beautiful forest of mingled Black Oak, Garryana Oak, fine Madroña, and Madrones and Madronas! and Douglas Spruce. I know of nothing more beautiful than the wagon roads through the mixed oak and Madrones, scattered here and there, the Madronas standing everyway and making the forest glad. At Smith Fork* we hit Buckeye for the first time in Humboldt Co. Yellow Pine came in sparsely

* = Trinity Co.

20
B

South Fork, July 5, 1902
Trinity River

at Willow Creek. It is scarce here at South Fork.

- For a long time there was only one missionary church at Hupa. This to the Indian stood for the White Mans religion. It was the only one. Then another church came in. This was a revelation to the Indian. The White Man had more than one religion, perhaps more than two! Little did the Indian mind wist of the numberless creeds of the Caucasian, Christian not to speak of Hindu and Jew, and leaving out Theosophy and Christian Science. But Indian, his religion all one — all time told the same way — it is bad luck to tell the stories during

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- Between Willow Creek & Hupa one passes over the mountains on account of the Trinity passing through a sharp cut. Along the ridges there is fine Tan Oak, Madrone! the leaves now falling & thick on the ground and Douglas Spruce

South Fork

{ Trinity River
Camp on west side = Humboldt Co.

- We camped last night in an old apple orchard at the end of the road - on the high banks of the Trinity. At this point the clear waters of the South Fork mingle with those of the mud-brown Trinity - the first time on this trip we have met a muddy river. This is a picturesque spot - the high wooded hills on the east side come sheer down to the waters edge. The point of land between the two rivers is (K) Lel-ding. Here lived a long time the God of the Hupas. Just below the forks is another wooded point running out into the river. At both of these places there is an Indian village - the house standing near Madrones Black Oak, Maul Oak & Douglas Spruce.

July 6, 1902.

For breakfast this morning we had Corn Bread, fresh baked; butter-ham - and apple Sauce, newly made from the green apples on the apple trees hard by. Then in a hole in the ground we raked the breakfast coals, put in a pot of beans, covered the same over and put a bonfire on top. Thus will our dinner be ready to-night.

- When we got up this morning I replied sleepily in response to matutinal salutation: Oh I ate too much supper; it played thunder with my stomach & guts. "Now don't you mix your English & Latin said Mr. G. Either panuch & guts, or stomach and intestines. I dreamed that there was a Greek Play; that President Wheeler had to take the part of an Old woman

South Fork to Noble's Ranch (Trinity Co.)
↑ Trinity River

and that he was too tall and had to get down on all fours. I was trying to help him out. A young owed came along and wanted to see him. I shut the door and thought I would protect him. She said: You let me in. This is the University of California and I can go anywhere."

No. 1985. Polygala cornuta Kell. Bushy but low, 2 ft. high. Woody stems below.

[We leave Martin's Ranch, see itinerary p. 92, to go up New River to find remnants of nearly extinct tribes. See note in Science 71: 546.

No. 1986. Asarum Hartwegi. Trail to Hoboken from Noble's Ranch. Leaf so conspicuously mottled when the plant is alive that any one would know it.

and New River, July 7, 1902
(Trinity Co.)

- The Trinity cannot be forded even yet. It is a large stream, larger than the Eel, — and in point of force and movement of its heavy current it is larger than any California River that I ever saw. Of course the Sacramento & San Joaquin in the valleys are very broad rivers. The river is very muddy on account of mining; in the mid-day sun the river is a mass of molten copper, strangely beautiful, moving down irresistibly. We crossed the river in a canoe, swimming our horses. Southfork Johnny, - Hupa Indian, took us across in his canoe, made from a single log of redwood. We followed the Trinity, past Campbell's Ranch to Hawkins' Bar

New River, Trinity Co

– Tan Oak abundant on the Trinity. I have no doubt Mr. Berry's estimate of 1000.00 cord is not excessive, perhaps low even. One can see great patches of it in the canons on the mountain sides which come sharp down to the river at Hupa. There were fine groves of it on the ridge between Hupa and Willow Grove – the finest grove had had the Douglas Spruce cut out doubtless. There is an old saw mill a mile below. The Indians in getting coal wood for the school prefer to cut Tan Oak, they can get so many fine 4ft. lengths for their cord without cutting any limbs. The Tan Oak will give more log material of

July 7, 1902

gigantic size than any other California Oak. Doubtless the Black Oak comes second but the Maul Oak will push it closely. The Tan Oak continued all the way to South Fork. From South Fork up the Trinity to New River there is more or less Tan Oak but it is scattered. We went as far as Noble's Ranch and Dyer's Ranch on New River.

Mr. Berry got a contract 10 yrs ago for 1200 cords of Tan Oak at $12.00 pr. A stranger came up from below to get that much placed. He didn't know how to buy and went to —— the regular buyer, who offered it him at 12.00 (his buying price being 10.00). In some way Berry got before

New River, Trinity Co.

the stranger through a friend and got the contract; delivered his 1200 cord on time. That was the highest price he ever got save last year when the price was $12.25. Then the two tanneries (at Arcata and near Eureka) got to competing. They were afraid there would not be enough. Then was no tan oak exported that year. In the year of hard times (about '93 or '94) the price went down to $5.00 + 7.00 + 7.50. Sometimes $7.50 cash + $8.00 store credit. Then the store credit went up to $9.00 but the cash price remained the same. People cut no more than they had to. Just enough to get a little money to buy groceries and pay taxes and "worry along" for the time being.

July 7, 1902

The cutters rarely use a peeling tool. A man can peel 1/4 cord more in a day without a "spud" than with one, on account of laying down his axe and picking it up again.

- Above Hawkins bar a great mountain spur runs down to the Trinity; beyond this lies New River. We, therefore, went up a little stream at Hawkins Bar, leaving the Trinity, and began to climb the ridge. Then we drifted along the mountain side beyond the summit and down into New River, to Noble's Ranch. A high spur gave us a fine view of the Scott Mountains, lofty and snow-patched above timber line. These are the mts mentioned on the next p. Between lie the Salmon River range, low (comparatively) + forested. The Scott mts close the horizon. The next p is repetition.

Noble's Ranch, New River, Trinity Co.

(cf. bracketed note, p. 86).

Broke camp early left our wagon at Martin's Ranch, South Fork, packed Buck with packsaddle grub & blankets, hired one horse & 2 saddles of "South Fork Johnny" a full-Breed Indian. Johnny took his canoe (cut from a single log) and swam our horses across the heavy current of the Trinity, then returned for our packs. The trail to this place led along the Trinity for some distance than up a high ridge. So we came around over a spur we saw a magnificent range of snow-spotted mountains to the east. What are they? They are worthy of a visit. The forest here was of Douglas Spruce, Yellow Pine coming in a little on the highest

July 7, 1902.

ridge, fine Madronas 100 ft. high, Black Oak with great straight trunks 20 & 30 ft high & smaller ones even higher, fine Maul Oak. Herbaceous plants: Draperia systyla! Asarum Hartwegi! These meeting Oxalis Oregana! & Achlys of the Sierras triphylla! which occur abundantly the latter of the coast. We met scarcely any "prairie". The country has been burned here & there and fine groves of Black Oak clothe the nuts from bottom to top with sharp lines of Douglas Spruce meeting them. The Black Oak is little hurt by fire or in any event springs up promptly as does the Tan Oak. and is given a great chance when the overhanging Coniferae go.

Noble's Ranch to Dyer's Ranch
Trinity Co. (New River)

Madrona now shedding its beautiful Terra Cotta branches, coincident with the season of new shoots. The color everywhere has been terra-cotta. Now the green under-bark is revealed. ~~[illegible]~~

- What a very spiny thing Maul Oak is on new shoots from the stump!
- Brodiaea coronaria - common everywhere (from Ukiah) in little opens.
- The altitude of the ridge passed over yesterday must have been 5000 ft. ~~at least~~, certainly 4500.
- Trientalis latifolia & Vancouveria parviflora - add to Coast List previous p.
- Saxifraga peltata & Montia parvifolia at New River, Noble's Ranch.
- Coming down trail from Patterson's Ranch (near Nobles) to Dyer's we come

July 8, 1902.

suddenly upon a south turn on a sharp up & down mountain side* covered with Pinus Sabiniana, "Red Bud" (Cercis occid.), Blue Brush, Arc. manzanita, Mt. Mahogany (Cercocarpus betuloides). Further on was Garrya Fremonti & Amelanchier alnifolia, Squaw Bush & Clematis lasiantha.

- Garryana Oak & Maul Oak are the two white oaks here and the only oaks except the Black Oak.
- Garrya Fremonti is abundant. Sprouts abundantly from burned stumps. So does Black Oak.
- Very sharp high east hillside a mile or more long & 2000 ft high (or perhaps only 1500) about 40 % of the stand Tan oak, the rest Douglas Spruce mainly.

* Overlooking Hoboken Flat.

Summit of trail from Dyer's ranch to Hawkins Bar = c. 5000 ft.

Dyer's Ranch to
(New River), Trinity Co.

- The only women left of the Chir-merico tribe are wives of white men. Mrs Dyer is one; Mrs. Noble, her daughter by the former Indian husband another. I think I can understand something of these cases now - white men Mooriying Indian women, satisfied or at least content, living in these remote mountain places. The Indian girls that I have seen are attractive; the half-breeds very pretty. There is something elemental about them. Mr. G. says they are good natured, that they they are rarely scolds (= talk too much) and thus give cause for divorce (sent home to the father). If the husband

Hawkins Bar, July 8, 1902
(Trinity River)

comes home drunk they accept it as a matter of course, and never scold or make a great fuss about it! To have a peaceful wife - that may seem to these men compensation for many things!

- Its a good steep trail from Dyer's Ranch to the summit of the ridge where we hit the regular mail trail to Francis that we followed as far as Noble's.

- Dewaya Hartwegi, near Dyer's

- Left Diggu Pines behind in ascending

- Moreover, the Indian woman have well developed parts, their forms are not ruined by society conventions, they lead natural lives - all of which is in their favor. So these rough miners apparently find wives to their entire liking.

Summit of trail from Dyer's ranch to Hawkins Bar = c. 5000 ft.

Dyer's Ranch to
New River, Trinity Co.

- Clarkia concinna – near Dyer's Ranch
- Godetia amoena, spotted and unspotted petals; the latter more common if anything, and the color less intense than near the coast, so that they are of a pale Sidalcea color and look exactly like those coll. by myself on the Coulterville grade to Yosemite, and on the trail into the Giant Forest. I have not made specimens at this point.

Also C. rhomboidea, higher up.

- Dyer's Ranch is set in a pretty flat at the turn of New River about 2 mi. before it reaches the Trinity. "Mrs. Dyer" is heavily tatooed. An old-timer at Patterson's ranch snorted:- "A full-blooded Squaw!" These squaws belong to the Chimeneas – these are only 3 or 4 of the tribe left. All the women of the tribe are married to white men.

Hawkins Bar. July 8, 1902
Trinity River (Trinity Co.).

No. 1987. Apocynum pumilum Greene. Anther-column cone-shaped, the anthers sagittate at base. Corolla pinkish, cylindric-campanulate, or slightly contracted at the base of the short recurving lobes. Near summit of trail.

No. 1988. Boschniakia strobilacea Gray. Near summit trail

No. 1989. Chimaphila umbellata Nutt. ~~Not C. Menziesii Nutt.~~

Petals pinkish, concave, recurving. Anthers ascending; filament at base deltoid. Stigma circula-depressed, not lobed, greenish.

No. 1990. Silene lemmoni Wats. Douglas Spruce woods, near summit of trail.

- Rubus parviflorus, Vancouveria hexandra, Berberis nervosa – at night camp near summit of trail.

- Mr. Goddard reports Chestnut Trees (Castanopsis chrysop.) on the ridge.

No. 1991. Lupinus latifolius Agardh. "Yellow Pine Lupine" of Sierras. Near

Trinity Co.,

Dyer's Ranch to

summit of trail, in tall coniferous woods. Fls light blue, hardly any white center to banner

No. 1992. Malacothrix. Floccifera

Fls. 10 lines broad, ~~egg~~ yellow! Involucre ~~egg~~ shaped. Slide, coarse sand, near summit

– At a camp on the summit two Madrona trees have been ringed, the rings being about 1 ft. in length. One tree (the ring at least 1 yr old) have covered the scar with a new coat of bark. This would indicate that the bark does not put down to the cambium but a little short of it.

– Noticed another Douglas Spruce slump – about 3½ ft. high, that had heeled over after the fashion of the one near John Woodhead's ranch: see supra.

– The Douglas Spruce saplings grow ½ to 2 ft. per year. Madrone shoots of the season are often 14 in. long

Hawkins' Bar, July 9, 1902.
(Trinity Co.).

– "Buck" has been loading up on Poison Oak foliage the last 2 days.

– The big mountain at the confluence of the Trinity and New River is Dixon's Mt. or Old Ironsides; the face as seen from South Fork is bare but the other sides are wooded.

– Stopped for lunch at Hawkins Bar = Jerry Smith's place. He is the first well-informed man that I have met in the county. Besides he has the very finest kind of Black Tartarian and Royal Anne cherries – he turned us loose in them. The first fruit feast I have had this year.

No. 1993. Black Oak. Dyer's Ranch

No. 1994. Arabis glabra Bernh. Near summit New River trail, south slope, in open woods, loose soil.

No. 1995. ~~Hieracium or~~ Madia madioides (Nutt.) Greene with #1994. Is a Madia but it has a queer look!

Hawkins Bar, Trinity Co.

Trinity Co.

-Jerry Smith says Iqnaw Oak (as he calls the Tan Oak) is not used for any economic purpose in this region save for firewood. It was the great resource of the Chimgerians for food. Smith likes the bread made from the acorns but not the soup. He has seen the squaws "leeching" the acorn dough in the Trinity River sands. He has himself seen the Tan Oak in the Scott River mountains - the lofty range eastward that we saw from the summit of the trail to Noble's Ranch. He calls Garryana Oak White Oak - that is the only name that he knows for it - on account of the white trunks. He spoke of an exceptionally fine grove of it on ~~South Fork~~ Redwood Creek about 40 mi above

July 9, 1902.

Berry's Ranch. One can see them some distance away and the tops are not noticed on account of the white trunks standing like gravestones in a graveyard. this "Live oak" is Quercus chrysolepis. He also knows a Live Oak in the high ridges the leaves of which are never larger than 10-cent pieces. He calls this Valparaiso. It has a crop of acorns once every 6 or 7 years. It has a trunk 1 ft. through at most (I think he said 1 or 2 ft.) Old Iron-sides, he says, is about 1000 ft. high.

- Black Oak between Campbell & Smith Fork - 12 1/2 ft. at 5 ft.

- The Weaverville paper that Smith had, one of recent date, contained a list of Trinity Co. altitudes.

- For 6 miles, between Hawkins Bar and Smith Fork the south wall of the Trinity rises up abruptly with scarcely a

Hawkins Bar to Campbell's and
Trinity Co.

hundred or two acres of semi-flat. The Douglas Spruce and Tan Oak run clear to the top. I should say the Tan Oak is about 25 o/o of total stand. On east and south slopes great areas will be totally replaced by Black Oak (and to some extent Garryana).

Garryana is certainly the whitest trunked oak in California, exceeding the Blue Oak in this respect. Sometimes the trunks look as if newly white-washed. Usually the trunk is very smooth but along the Trinity the bark is checked into squares and sometimes so deeply as to make cubes. One trunk I could not distinguish from a Valley Oak - and I have seen several more such.

Manual of Personal Hygiene. Phil. (W.B. Saunders & Co) $1.50 net.

South Fork, July 9, 1902.
↑ Trinity River,

- Campbell's is an old time place on the east side of the river. Campbell is dead. His wife was a squaw. And so on - up and down the river. The half-breeds that I have seen are good-looking. Johnny Davis had a most soft voice, gentle manners and pleasant speech. His bearing was very gentlemanly and he bore himself with easy confidence.

No. 1996. Umbellifer. With #1994.
Leptotaenia dissecta Nutt.
✓No. 1997. Cryptanthe. With #1994.
C. simulans Greene.
✓No. 1998. Pyrola picta forma aphylla. With #1994.
↑ Sm.

Style curved downward and upwards, standing wholly apart from the stamens which are congested on the upper side.

No. 1999. Erigeron. Trinity River mountain sides, Hawkins Bar to Campbells.

- In such a trip as this one gets a good idea of the vastness of California. I cannot but remember the remark of Mr. Perrides of London, England whom I met at Ukiah. - See bottom of next p. —

Martin's Ranch, South Fork, Trinity River.
(on W. side South Fork and therefore in Humboldt Co.)

No. 2000. Rhus diversiloba T. & G. Poison Oak leaves. Variation
Shade of Madroña, Spruce, etc.

No. 2001. Rhamnus, Fruit 4/5 grown, fls. still on bushes. californica typica C.B. Wolf

No. 2002. Eupatoriaceae. Blumpo. Stems of the season from a woody crown or woody stems 5 or 6 in. long persisting. On rocky wall of stream.

- "Datisca glomerata, B. & W.

- Philadelphus Lewisii, Old stems (last year's) bending over; and from them arising a series of "canes" or vigorous shoots; from these shoots the Hupa Indians make their arrows.

Cont. from bottom prev. page:
Now, your State is too large. I find I can't get over it all. Don't you think you could shrink it up a bit!" — And he was studying Rhamnus only! (From the botanico-pharamacentic side)

(Humboldt Co.) July 10, 1902.

- Mr. J. tells me ~~that~~ the many myths and stories he has secured and is now securing from the Hupas. There is time an extraordinary parallelism between these and our Old Testament Bible stories. The Hupas have stories of the Origin of Evil, Origin of Death, of the Flood, of certain instruments or regalia that must be kept from the sight of the common people. Their "ritualism" concerning handling of the dead, of the menstrual period in women etc - all have their parallel in the Bible stories. The ethical endowment of the race rested on their stories.

No. 2003. Poison Oak leaves. Variations. Shade! River bank, springy place.

No. 2004. Arbutus menziesii Madroña leaves; taken from shoots from maimed tree (cut, stump) - showing effect of rank growth: - Serrate leaves and shoot hispid at base. Shoot = 3 ft. Serrate

Trinity River, at Martin's Ranch, South Fork
(Humboldt Co.)

leaves also occur on ordinary shoots but I think the orbicular shoot, especially in the top of the tree has quite entire leaves.
- Pentstemon corymbosus, rocky cliffs of the Trinity. 2½ ft. high, 2 ft. of this persistent (woody). Corolla scarlet, tubular, upper lip oblong, shortly cleft at apex into 2 short lobes, erect or nearly so. Lower lip 3-parted into broad lanceolate lobes. Sterile filament densely bearded on upper side like a brush, the hairs scanty below. (Style in one fl. but 1 line long - doubtless exceptional or accidental.)
- The Tan Oak is in bloom all along the Trinity. Its flowers have a very rich and creamy (altho heavy) fragrance. One is ever reminded of the presence of the tree these days by the odor, if the eye fails to see it.

There is a ranch here at the South Fork. The situation of the ranch house is wonderfully attractive. In the apple orchard on the first terrace above the river we have our camp, under apple trees. At the ranch house is a family, including four or five mixed blood girls, slender, handsome and exceedingly shy, for they disappeared instantly on our appearance. In the early hours of the warm afternoon they go in bathing in the great pool at the confluence of the South Fork and Main Trinity. Above the pool rises a little crag or steep bank covered with fine trees. It is a scene of sylvan beauty and as we sit on the further shore at the seat of

the god E-man-tu-wing-e, tarti
down stories from an old Indian
chief, we can look across the
stream to the placid pool where
the nude nymphs, the soft
outlines of their young bodies
unconstrained by clothing, disp
themselves in the transparent wate

These girls ranged from
about 11 to 19 years. Their
hair was very dark, their eyes
dark, but the skin was really
fair with a sort of luminous
clearness. I cannot now remember
whether these girls were a cross
between Portuguese and Anglo-Saxon
or Portuguese and Indian; but
I think the former.

Cont. from p. 108. - Pentstemon. In an earlier day I had a habit of not only recording observed specimens in the field, which I still do; but also of taking notes on observed species without taking a specimen.

Martin ranch, South Fork Trinity.
Humboldt Co.

July 10, 1902

Martin's Ranch
Observed at South Fork (Trinity River): Melilotus alba in fl; Whipplea modesta, past fl; Plantago lanceolata; Saxifraga Peltata, 24 in. across (leaf). Philadelphus, noted 5+6-merous fls. Petasites, leaves 15 in. across; Hypericum #1984, in fl. foliage with numerous transparent dots and scattered black dots; Holodiscus discolor (same type as at Berkeley), stamens 20, 22, 20. - usual assortment of introduced weeds. But Martin's Ranch: - Anthemis Cotula, Convolvulus arvensis, Portulaca oleracea stamens 8, 10; Plantanus Meliténsis. Rubus leucodermis; Buckeye (in fl.!); borrya Nuttallii; Rosa gymnocarpa; Heuchera micrantha;

Trinity River, at Martin's Ranch, South Fork (Humboldt Co.)

No. 2005. Bralia balfourica. Height 8 ft. Leaf 55 in. long; stipules broadly ovate and very oblique, 5/2 in. long or less. Petals dull white, oblong, acute, reflexed, 1¼ lines long. Petiole 15 in. long with 3 divisions; divisions pinnate with 9 leaflets except lowest outside leaflet on lateral divisions is replaced by a pinnation of 5 leaflets; and in the case of the middle division each of the lowest leaflets is so replaced. This is a basal leaf. Stipules taken and all petiolules & rachis parts but the above is a description of one leaf of which entire specimen was taken except 1 lateral portion the two laterals being alike. There

July 10, 1902

is however great variation in the arrangement of the leaflets. Division sometimes 5-pinnate, the laterals with the lowest leaflet replaced by 3 and the outside middle division simple. Upper leaves 3-foliolate; sometimes with "immersed" leaflets. One terminal leaflet of a 3-foliolate leaf taken. This is Watson.

No. 2006. Bralia balfourica. Also

No. 2007. Ditto, terminal leaflet and one lateral.

No. 2008. Campanula prenanthoides. Stamens past anthesis long before the stigmas radiately expand. Propagating by "stolon-like" prostrate stems or stem bases. Rare banks, Trinity.

No. 2009. Hieracium. "albiflorum"

No. 2010. Lathyrus sepsonii ssp. californicus. Has uniform bright purple. with # 2009. See p. 28a.

Martin's Ranch, South Fork, Trinity River.
(Humboldt Co.)

[K]-Lil-ding seat of E-man-tu-wing (Hupa Creator), July 11, 1902.

No. 2011. Aruncus vulgaris Raf. ~~sylvester Kost. var. acuminatus Jep.~~ Goat's Beard. Plants 5-7 ft. h. Terminal portion of panicle taken, one cut below taken, similar cut below not taken. Leaflets whole leaf taken from midway of stem. River bank of the South Fork.

No. 2012. Boykinia. With #2011. Petals white, obovate, obtuse. B. elata green.

- Mimulus cardinalis. Lobes equal, the 3 lower spreading, the two upper erect and not so deeply separated; hairy lines in upper portion of throat on lower side.

No. 2013. ~~Tolmiea menziesii~~ T.&G. With #2012

No. 2014. Cornus. Bush. Clumpy, 15 ft high or less. River cliffs. C. sessilis Torr.

No. 2015. Galium. Fls. pure white. Springy banks of the South Fork.

No. 2016. ~~Gilia~~ Linanthus bilipes. Note how like Leptodactylon woody species the tiny candex-like bases are! Dry hills-

No. 2017. Epilobium adenocaulon ~~californicum~~ Hausskn. Fls. whitish. Rocky drift in springy place, steep banks of the Trinity at South Fork.

No. 2018. Stachys rigida. Main stem with simple branches from all the axils, down to the base; terminal racemes taken and an opposite pair from a little below midway. Plants 2-2½ ft. high. Rocky, springy, banks of the South Fork at Trinity River.

No. 2019. Gilia = Navarretia intertexta Stend. Fls. white; anthers yellow. Dry ground, South Fork.

- Luccock, a miner, P.O. address Burnt Ranch, says "Bear clover" will bloat cattle if they get too much of it. It grows on "blue slides" and elsewhere; has a small pink flower; nearest thing he knew = Vetch. Says he will send spm. Also grows in Santa Barbara County.

Trinity River, South Fork.

Martin's Ranch, Humboldt Co

No. 2020. ~~Godetia~~ Clarkia amoena, G. Don, Sidalcea color; color uniform (no spots); dry hill. Looks like plants of mine from Giant Forest road of the year 1900.*

No. 2021. Daucus pusillus, Michx. Dry hills. — Land cleared of Black Oak, Madrona, Spruce, Ceanothus nitid, Poison Oak, Garryana Oak — Now a hayfield from which crop has just been taken: — Black Oak bunches scattered over it like young grape vines: — nothing else. (Buckeye also cut off)

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* Plants within 10 ft. some with spot. Fls protandrous, the linear stigmas club-shaped until anthers dehisce their rotately spreading. Spotted (a few) and unspotted grow mixed. I have

July 12, 1902.

put both kinds into the number. There are relatively few of the spotted here, nearer the coast ~~few~~ of the unspotted.

- Struck camp at Martin's Ranch at 6:45 o'clock and drove into Willow Creek where we encamped on the creek terrace under shady Alders* on the banks. The next morning (Sunday) we drove into Hupa and camped by the Creek near the Indian School. (*A. rhombifolia).

Dulau & Co, 24 Max. [illegible] ord. 4 cop. [illegible] @ 25
Order turned in to Coop. [illegible] July 12.

Martin's Ranch to
(Humboldt Co.)

Distances: -

Willow Creek to South Fork - 6 mi.
Willow Creek to Hupa - 12 "
South Fork to Hawkins Bar - 9 "
Hawkins Bar to Noble's Ranch - 12 "
Willow Creek to Redwood Creek - 16 "
Redwood Creek to Korbel - 18 "
Korbel to Eureka - 20 "
Hupa to Trinity Summit - 16 "
Trinity Summit to Salmon S - 12 "
Salmon Summit to Salmon Forks - 12 "
Salmon Forks to Spomer's - 26 "
Salmon Forks to Cecilville - 20 "

Willow Creek, July 12, 1902
(Humboldt Co.)

- My name among the Hupas is: - E-mān-nā-dil-nez (From over the ocean (folk or white man), tall).

- Willow Creek is down on the maps as China Flat. It is the merest hamlet or stopping place - but such are so remote in this country that it is in its region metropolitan: A small store and postoffice combined, a hotel and saloon combined, and a blacksmithshop, and one or two houses for living in - that is China Flat.

Mr. Samuel A. Depke,
Hupa, California.

Humboldt Co

Willow Creek to Hupa, July 13.

No. 2022. Erythraea (centaurium Pers. = Centaurium umbellatum Gilib.) Fls crimson with decidedly pink base. Dry hillside

No. 2023. Pyrola picta forma aphylla Sm. Fls. flesh-color, pink-brown-tinted. Spruce forest.

– Cornus Nuttallii, at 18 in = 3 ft 5 in; at 4 ft = 2 ft. 9 in. Height = 30 ft.

No. 2024. Allium. (Doubtless same as no) ↓. In fruit. South Fork "Allium Bolanderi Wats.

L. Randolph Weinmann.

A. H. Butler, Chestnut & Clinton Ave, 1738, Santa Clara, Alameda.

There are two 18-yr old happy bright youngsters out for a good time. Drove from Alameda. The first has been at Boone's; Stanford next year. Father is Man. Sun Insur. Co, S.F. Other ones; Father President New York & Phillipines Steamship Co. Met them at Willow Creek and they camped with us there on Supply Creek.

Hupa to Mud Spring, July 14.

– Arnica discoidea-woods.

– Tan Oak seems to be very uniformly 10-stamened here. Calyx with about 5-teeth.

No. 2024A. Tan Oak. taken from same tree as note preceding. Hupa.

No. 2025. Cryptantha. Fls 3 1/3 lines broad. Hupa. See p. 126a.

No. 2026. Hookera bridgesii Ktze.

Fls. pale lilac, aging bluish. 1 1/3 in. broad or some smaller. Ovary stiped as in laxa and turned down to one side of perianth but scarcely so obviously. If this is not peduncularis it is new. Stamens equally inserted. Plants low! all of them! Hupa to Mud Spring. Common in half-open forest.

No. 2027. Orchid. (Cephanthera austinae Heller.) Fls. white; sepals & petals alike. Lip with the middle lobe hinged, upturned sides, 5 ridges, the lateral lobes and column forming

Mud Spring to Trinity Summit

a tube.

No. 2028. Phlox adsurgens Torr. Fls. pink, very showy, abundant in the Douglas Spruce forest where Fir, a little Sugar Pine, Yellow Pine, Libocedrus.
(Stamens unequally inserted.)

– Chestnut trees 100 ft. high, also low bushes. (Castanopsis chrysophylla)

– Tan Oak, some of the largest trees I have ever seen.

– Linnaea borealis, frequent, in fl.

– Whipplea modesta, common in the Fir forest, matting the ground, the fl. stems erect in Subarect

– Rhamnus Purshiana – bush like that coll. near Karbel. See # 1932.

– The most common plant in the lower hills about Hupa Valley now is Godetia amoena – fls. large & showy – mostly unspotted, 3 ft. h.

– Hypericum Scouleri – abundant on edge of Hupa Valley fields – 4 ft h.!!!

Humboldt Co.

July 15, 1902.

– No. 2029. Anemone deltoidea Hook. fls. pure white, beautiful spot on the forest carpet – very common.

– No. 2030. Ribes lacustre Poir. Fir → forest

– No. 2031. Amelanchier (A. pallida A. alnifolia Nutt.) Fir forest.

No. 2032. Rhamnus Purshiana DC. Fir forest

No. 2033. Sadler Oak. Mere bushes, the stems ascending from the base, in clusters mostly in one direction down hill, on account snow. Now in fl. Saddles & ridge slopes, near Trinity Summit; mostly 2 or 3, but up to 8 ft. h. stamens 12.

– Birch, 3 ft. high or 4, – no fl. nor fr.

– Holodiscus or Neillia? neither fl nor fr.

– Achlys triphylla DC., Berberis nervosa Pursh, Trientalis etc. Oxalis Oregana with white flowers.

Trinity Summit
(Humboldt Co.)

I should guess Trinity Summit to be about 6000 ft; there are great bare areas on top surrounded by patches of Abies concolor and single trees; small trees.

— From this place we are far enough north and high enough to have a fine view of the range called "Scott Mts" by Jerry Smith. Back of these, however, is a higher range, much more snow on it and capitalized here and there along the range by high peaks. My interest in and respect for this range increases hourly as I view it. To the north of it there is a great gap. We can see no mts beyond this gap. This range is from Trinity summit about 330 to the right of Shasta which looms up well, considering the distance. I shall call this range Scott Range.

No. 2034. Ceraeus Great thickets, unmixed with other shrub. Very top of Trinity Summit — exposed tops of ridges in open country. Photo by Mr. Goddard. Wood of this is very hard, especially when dry. = Prunus emarginata Walp.

No. 2035. (C. caerulens nats. not) Colochortus Maureanus (Leicht.) From recent snow banks. Petals rhomboidal, acute, densely covered all over (above gland) with long white hairs, those below blue. Gland crescent shaped, the hairs short and teeth-like.

July 16, 1902.

No. 2036. Lonicera conjugialis: Corolla dark purple; upper lip erect, 4-toothed; lower lobe deflexed, oblong, entire; mouth of corolla tube filled with soft white hairs

No. 2037. Ribes. Fls. white, pink-tinted. Stamens not exserted beyond corolla; petals roundish, entire, spreading (at most rotately). R. viscosissimum Pursh var. hallii Jancz.

No. 2038. Ribes. lobbii Gray. Sepals long-oblong, erect or little spreading; petals involute; stamens & style much exserted from corolla. Fls. crimson. Same as # 2044.

No. 2039. Erythronium grandiflorum ~~californicum~~ var. pallidum Purdy. Fls Lemon Yellow. Edge of snow bank. Sepals & petals lanceolate, the latter channeled. Style 3-lobed, the stamens not longer.

Trinity Summit

No. 2040. Calyptridium spragueca umbellatum, Fls. pink; stamens 3 and style 1, the filaments & style each resting in a half-involute petal. — Barren fine-gravel & soil summits.

No. 2041. ~~Mertensia~~ Hackelia jessicae (McGreg.) Brand. Fls blue, white crown slightly protruding from tube, the crown like Cynoglossum grande. — Wet hillside.

No. 2042. Collinsia ~~Fourreyi~~ ~~rattanii~~ ~~gray~~ Wrightii Wats. Upper lip dull white; lower lip blue. — Moist hillside. Sterile stamen = slender mammal projection. Two crests on upper lip but no ridge.

— Valeriana sylvatica, fls. white, lobes of corolla 5, equal; stamens 3, style 1; spur at base of corolla hardly any. Moist place.

No. 2043. Abies ~~concolor~~ magnifica Murr. (?). Stammate aments 6-8 lines long, well exserted on peduncles from the scaly winter bud.

No. 2044. Ribes lobbii Gray, showy with Turkish red velvety sepals, recurving or even slightly coiling sometimes. Plants 2½ ft high or less, often very small. Petals revolute. Petals yellow!

July 16, 1902.

Humboldt Co

No. 2045. Cicuta. Moist hillside under alder bushes; roots vertical, fleshy or fusiform; stems from the numerous candices which crown the root.

No. 2046. Sanicula septentrionalis Greene. Moist hillside under Fir.

— Vine Maple, stamens 8 the filaments arising from pits in the perigynous cushion. Sepals & petals greenish, so much alike as to be indistinguishable cursorily. Just past fl. only 1 fl in anthesis examined.

— What is decrease in boiling temp per 1000 ft? ∥. Violet, red & green rays.

— Subject for "Country Life". The exodus of farmers after harvest to the High Sierras.

No. 2047. Arc. Nevadensis gray. Erect stems 3 or 4 in. high, prostrate stems sometimes 2 ft long, but rooting. Under Abies concolor.

Trinity Summit (Humboldt Co.) July 16, 1902.

integerrimus Nutt. var. major (Gray) Crong ~~mendocinensis Gray.~~

No. 2048. Senecio. Rays yellow, 5-8. Rocky hillside. Leaves at base either obtuse or cordate

No. 2049. Collinsia. Sterile filament a subulate organ but short and stout. = C. Torrey Gray var. linearis Jepson. Upper lip with 2 crests. Fls. dull white with scarcely any markings. Rocky hill.

No. 2050. Delphinium Menziesii! Some pods erect, some spreading. Rocky slope in circque at Horse Prairie.

No. 2051. Phlox diffusa Benth. Stamens unequally inserted (and ∴ unequal). Corolla lavender. Branches such as taken many from several (3 or 4 in. long) candices which crown the root — the whole plant flat on the ground. Rocky cirque. ~~Fl. dull white~~ Phlox douglasii Hook. var. diffusa Gray.

No. 2052. Boschniakia. On Abies concolor or Libocedrus. Fls. in central part of spike mostly with 2 filiform bractlets, those above & below with one or mostly none. Fls. red-brown.

Humboldt Co.

No. 2049a. = Descurainia pinnata Sisymbrium pinnatum Greene.

— Cont. Cryptantha intermedia Greene, from p. 119, no. 2025.

...

— Hupa Valley is a center for an unbelievable number of Indian linguistic stocks — distinct in language completely and in tribal customs and in religion in varying degrees. cf. Science, 71:546. Salmon and New rivers and adjacent parts of Trinity river. See p. 86, ante.

Trinity Summit.
(Humboldt Co.)

- Cont. 2054. Orthocarpus arachnoideus (Greenm.), f. stylosus Jepson.
- Cont. 2057. Viola glabella Nutt.

July 16, 1902

the corolla & bracts edged with white. Filaments inserted in throat, hairy at insertion.

- Hydrophyllum - large species

No. 2053. Polygonum Davisiae. Stamens 8; style 3-cleft. Foliage white glaucous. High rocky ridge. Root 1 in. thick, fleshy tapering down 1 ft. or more.

- Only conifer (except Libocedrus) = Abies concolor. Picture of ridge & cirque in front taken by Mr. G. Young Firs in foreground. Alder patches below.

No. 2054. Castilleia, see p. 126 fls. yellow. rocky cirque.

No. 2055. Actaea, moist hillside rubra var. arguta ~~[illegible]~~

- gilia aggregata, in fl!

No. 2056. Caltha C. howellii (Huth) Greene leptosepala. Sepals 8 (or 9), boggy springs. Basal lobes of leaf turned inward and upward, standing vertically to blade, side by side. See p. 152.

No. 2057. Viola glabella Nutt. Near rivulet. Fls. yellow. Lower 3 petals veined with brown at base.

Humboldt Co.

Trinity Summit to Devil's Backbone.

No. 2058. Alnus tenuifolia Nutt. Alder - great thickets of it.

No. 2058A. Prosartes - like. Pedicels geniculate and with a gland at the knee. Fls. dull white. Segments lance-shaped, carinate, tubular by approx. the upper half spreading nearly rotately; alternate anthers dehiscing first, becoming subulate with sagittate base; note aroid - spotted leaf at base; stem with 4 branches, 2½ ft. h. By cold streamlet. = Streptopus amplexifolius DC.

No. 2059. Ribes roezii var. Gooseberry. Rocky hills red

No. 2060. Morehus? " "

No. 2061. Valparaiso oak. " "

Stamens 8 or 9. Looks like a vaccinium shrub with dense close branchlets. Shrubs 2 to 5 ft. high. Abundant on east slope rocky. Only part of root & top taken.

No. 2062. Arc. patula greene 4 - 5 ft. high. Fruits globose or plum shaped or suggesting certain pear vars.

July 17, 1902.

- Gomphocarpus cordifolius, in fl.

- No. 2063. Ceanothus integ. Blue fls. Terrimus H.&A. Bush 4½ ft. h. var. californicus (Kell.) Benson

- No. 2063A. Ceanothus integ. White fls. Terrimus H.&A. Bush a little lower. Only one individual of each noted here: -

Chapparral hill, on ascent from headwaters of Redcap Creek, consisting of Valparaiso Oak, Garrya Fremonti, Amelanchier alnifolia, Snow Brush; this society is a most smooth regular even growth, east. s. & w. - Pinus attenuata on this hill.

- No. 2064. Chinquapin (?) Low & spreading, typical as to habit. Down on the saddle we passed Chestnut? bushes, not, that looked very much like this.

- Valparaiso on this hill 2 ft high mostly

Devil's Backbone, on boundary betw. Humboldt & Trinity Co.

- Acer circinatum - all along Devil's Back-bone
- Devil's Backbone - up & down, up & down, trail follows along ridge, up & down, up & down, Salmon Summit right at hand, one can look right up to it, but one seems never to get there, up & down -

Some Sugar Pine along ridge, small trees, a good deal of knob-cone Pine, at last a little Fir. For a long time however there are no trees at all except Douglas Spruce down in canon north & climbing up occasionally. Later when the above come in they are small & scattered

July 17, 1902

- At last the Devil's Backbone comes to an end and we come out on top of Salmon Summit but in a saddle where the trail passes over. It does not seem as high as Trinity Summit, either by reason of cold or vegetation. Plants are growing rankly just as they were on Trinity Summit. It is far from being the height of the season - While everything is interesting, I take most interest in the species of the rocky ridge of the Devil's Backbone, the Arenarias, Calycadenia humilis, and the little Onion. See spurs.

Devil's Backbone

(on boundary betw. Humboldt + Trinity Cos.)

No. 2065. Arenaria gregaria Heller. rocky top, loose stone. Petals white, narrowly obovate; stamens 10; styles 3; glutinous herbage.

No. 2066. Montia parvifolia Greene - dry rocky exposed place. Petals pink, equal, not notched; stamens 5.

No. 2067. Pentstemon laetus Gray var. sagittatus Heck. Fls. blue-purple; 2 ridges down lower side of throat = whitish; sterile fil. glabrous; anthers hairy. Rocky places, ascending, in tufts.

No. 2068. Sanicula. Fls. yellow. Stems decumbent or ascending. Leaves very finely cut. S. nevadensis Wats.

No. 2069. Allium falcifolium H. & A. var. demissum Jeps. Fls. dark purple. Perianth contracted towards apex. Umbel only a little, scarcely at all, above ground.

No. 2070. Draperia systyla. Coniferous forest. Fls pale lilac. Only a portion of tap root and branching caudex taken.

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No. 2071. Erigeron foliosus var. confinis (Howell) Jepson - rays blue - in clefts of rocks on very knife's edge of Devils Backbone.

No. 2072. Cycladenia humilis. Fls ~~light~~ red - purple, very beautiful, the lobes of the broadly campanulate corolla with crinkly edges. In narrowless loose rock.

No. 2073. Cacaliopsis. Fine large heads & beautiful leaves. The Senecio that was coll. on Trinity Summit associated with this. C. nardosmia Gray.

- The Devils Backbone is a knife's edge in some places, knolls in others. The name is certainly appropriate though one is tired of the continual use of the Devil as a locality name by backswoodmen.

- Sorbus ~~sitchensis Roem.~~ californica Greene. Salmon Summit, July 17, 1902. No. 2075a.

See p. 134. See also bottom p. 134.

Salmon Summit.

sw. Siskiyou Co.

No. 2074. Valeriana. Fl. pure white, in a subumbellate panicle.

No. 2075. Frasera speciosa. 2½ ft. h. or 3 ft. Just coming into fl. Petals greenish, dotted purple around the edge. Glands 2, oblong, arched over high by erectish hairs. Fringe from base of petal radiating over gland. Also observed on Trinity Summit. Plant not far along.

No. 2075a. See p. 133.

No 2076. Phacelia procera Gray. 3 ft. h. Leafy to top! leaves decreasing little in size. Corolla dull white, bowl-shaped with spreading rim. Lobes short, obtuse, revolute. Stems in clusters usually, from a big central root, erect.

No. 2076a. See p. 136.

No. 2077.* Fritillaria atropurpurea Nutt. Segments speckled all over with purple, a purple zone at base with a small greenish-yellow area below it as above. Summit of Salmon Divide.

No. 2078. Actaea rubra var. arguta. Stamens many. Petals white, broadly ovate or oblong, with claw!, 9, 8, 7 (or less?) Some fallen when 5? Stamens about 25. Claw of pets slender. Petals seem not to be less than 7.

No. 2075a. Mt. Ash. Stamens 20. Petals orbicular. Shrubs clump-like, 8 & 9 ft. h. Flowers look like those of Nine Bark.

* No. 2077a. See p.

** Prunus emarginata

July 17, 1902

The great feature (A. tenuifolia) of this country is the thickets of alder on the canons & wet hollows also wild cherry (see spm), and the Snow Brush* & wild Cherry** on the exposed ridges & slopes. Alder 5 ft or even 10 ft. h.

* Ceanothus velutinus

- Rapid growth of plants, coming under the edge of melting snow-bank where snow has recently been.
- Fungus on cherry - clusters of yellowish leaves developed far ahead of ordinary leaves (No. 2034) this no. is the species.
- The plants grow so fast. Suppose said Mr. Goddard our bed should be raised 10 ft in the air over night by the growth of the plant where we spread our blankets.
- The Scott Range (see back 12 p. about) looms finely from here as does the great gap at the left end of it. Far north are great mountain systems, to right & left, that we cannot guess at. Far to the N.W. is a range with a high peak that is a peak, sharp & abrupt all-around - with snow on it,
- this may be Happy Camp Peak guesses Mr. G.
- There is much fallen timber. Must be great smashing in the wind winter.
- Evernia on Fir trunks - touch a match and the fire races to the top, 150 ft or more high - with a great puff and then goes out.

Salmon Summit Trail to

"No. 2076 a. Silene (campanulata Watz. var. petrophila Jepson.) Petals pale yellow, deeply about 4-parted into narrow segments, each segment 2 or 3-parted, in brief the petals deeply slashed, pale yellow, coiling in upon the tips of the conspicuous (white) lanceolate crests - these 4, the two lateral smaller; capsule broadly (at summit) pear-shaped. Rocky ridge.

— Lonicera flo. red.
This specimen is numbered 21,107.
cf. p. 135.

- Garryana scrub, Vine Maple, Valparaiso (a little), lots of Snow Brush - these along backbone trail. Also 2 sp Fir, Sugar Pine, Yellow Pine, Douglas Spruce, Libocedrus. Also Wild Cherry (Prunus emarg.) & Amelanchier alnifolia & Ceanothus integer. Fir with an immense witch basket. Hazel occurs (Corylus ros. cal.)

No. 2078 A Fir. Fruiting tree 5 ft. h. Seem. cones green & purple Abies concolor

Forks of the Salmon, July 18, 1902

No. 2079. Abies Shastensis. Ridge.

- The King of Salmon River lives at the Forks of Salmon. His name is Bennett.

[Note taken at Forks of Salmon: — Dry! Ceanothus cuneatus; Squaw Brush; Cercis occid.; Hypericum Scouleri; Datisca glomerata (5 ft. h); Eremocarpus setig. Hypericum scouleri* (same as at Hupa) covers great areas of the dry flats - pure colonies. Quercus Garryana. Lots of Red Bud.]

- The King of Salmon River owns "the whole river" and is worth a great deal of money. He has been a student of human nature and human experience and the words of wisdom and wise saws fall from his lips rapidly. "But what is it to be rich? To live here in these mountains unfits one for living anywhere else."

- Tan Oak - after getting down 7 or 8 mi (as in S.F.) also Madrona.

* = perforatum L. (!)

Salmon Summit Trail to Forks of the Salmon, July 18, 1902
(Siskiyou Co.)

- Yew (Taxus brevifolia), in deep cañon, top with widely spreading branches and pendulous branchels; bark red-brown-scaly. (Taxus brevifolia)
- Alder sapling, probably Oregana, 30 ft. h. and 3 in. through at base!
- Pyrola with ovate much spotted leaves.
- Chamaphila with long narrow serrate leaves. I forget specific name at moment.
- On the lower ridges near Forks of Salmon the Chestnut comes in - trees 50 ft. h. - every gradation ~~from~~ to this from the Chinquapin-like forms on the high ridges (#2064) was passed, the central part of the bush getting a little higher, finally becoming a sapling and more or less tree-like and at last a tree, not with the smooth gray bark of the bush & sapling, but with characteristic dark-brown furrowed bark. The oaks (like

Quercus [Avislizenii] have montane scrub forms. Why not this Chestnut?
- Apropos of this: typical Maul Oak occured at about the same pt. as the Chestnut - higher up was the Valparaiso Oak (Quercus vaccinifolia).

"I can say without bragging that I got drunk once. But no man who has ever been drunk once will do it the second time" - King of Salmon River.

"A man isn't much of a man who hasn't consideration for others." King of Salmon River.

"There are people who will kick at every enterprise and forward movement. It cost me $3000.00 to get the wagon road in and yet people opposed it. Some preferred to pack. They were in the business of packing!" King of Salmon River.

"Indians don't amount to much." - King of Salmon River.

- Asclepias speciosa - dry flats - all the way to Cecilville.
- Clematis ligusticifolia - dry hills - clambering over shrubs, in hot cañon of the Salmon

Forks of Salmon to
(Siskiyou Co.)

- Verbena prostrata, dry flats, abundant
- Pinus Sabiniana
- Quercus Garryana thickets
- Datisca glomerata - tremendous rank growth 8 ft. h.
- Garrya Fremonti 15 ft. h. (mostly ~~6-9~~ 6-9) a great deal one in this cañon
- Knob-cone Pine - 100 ft. h.
- Black Oak shrubs
- Saxifraga peltata - all along the river
- No. 2080. Cymopterus terebinthinus. Rocky slope, slide of loose rock. (T. & G. var. californicus Jepson.)
- No. 2081. Nine-bark. Dry cañon.
- No. 2082. ~~Liliaceous~~ Springy place in bottom of cañon. (Side) Schoenolirion album Dur.
- No. 2083. Birch. With # 2082, but its associates along the main Salmon River Cañon exceedingly incongruous. See note 4 p. back on shrubs of dry places. This an odd place for it to occur
- No. 2084. Pyrola picta Sm. Flowers recurving, dull or greenish white; style turned downward to lower side of corolla; stamens turned to upper side. Yellow Pine - Douglas Spruce forest - Near Jordan's Ranch, Summerville

Cecilville, July 19, 1902
(Siskiyou Co.)

- Burn not far from Cecilville: - coming up from base: Squaw Bush,* Cercis occid; Black Oak, Garrya and Oak, Garrya Fremontii. - came along S. Fork Salmon to Yocumville (of which there are a few vestigial cabin foundations) to Nugget Bar, where Chinamen were working the gravels for free gold and had a neat garden in an enclosure, to Cecilville. Cecilville is exactly like the "Chinatown" of a very small Californian town of the Sacramento or San Joaquin Valley. Towards Jordan (Summerville it is now!): he crossed the river at Cecilville on a packtrain bridge. Just before reaching Cecilville we had a view of the "Scott River Mts. of Jerry Smith". We passed many miners' cabin. Each place had a little vegetable garden irrigated from the mining ditches, a cat or two, some apple trees, and an old miner. The old miner looked the same everywhere. Stubby gray beard, an old hat and a pipe.

*Rhus trilobata Nutt.

Near Cecilville we came into the finest grove of Knob-cone Pine that I ever saw: pine grove, trees young, 15 to 80 ft. high. They drop their cones at maturity or shortly after and the open cones lie around on the ground. The

(South Fork Salmon River).

Cecilville to Summerville July 19
(Siskiyou Co.)

tree is a sparsely foliaged tree: at least one looks through it easily (Perhaps it may be due to the branching or lack of branching). Three or four reasons leaves persist, at least toward the top of the tree. Beyond Cecilville half way to Summerville, I saw a tree of this sp. 150 ft. high and I judge about 2½ ft through at the base (8 ft in circ!!) From near Summerville we get a fairly good view of the high peaks at the left of the Scott's Range as seen from Trinity Summit. At Jordan's Ranch (where we encamped) we had a broadside view of the great peak or mountain lying behind the left end of the Scott's Range as seen from Trinity Summit. This is called Grizzly Mt. here. In full view there is a fine fall said to be 100 ft. high. The upper slopes of

Summerville, July 20, 1902

the mountain look alpine from this side and only small patches of timber occur and these below the summit. Mr. G. took picture — (Yellow Pine in foreground).
The elevation here is 3300 ft.
- Jordan came to this country (this locality in 1853.
- Knob-Cone Pine - trunk brown, sometimes flackish, scaly.
- A few Tan Oaks on hill back of Jordan's Ranch
- "Yu collect all these dead languages, shake 'em up in a bag and take them to Mrs. Hearst and ask what they are worth to her!" — Mr. Jordan of Summerville who doesn't see the good of studying dead languages. He has an Indian wife and a neat place (for this country). Interesting for his sharp shrewd comments. As we laughed he said to Mr. G. — "Oh you're all right. I'd like to have a job to lie around in the shade!" But Mrs. Hearst! Well these people that have got more money than they know what to do with! They are often fools!"
- Populus trichocarpa, Cecilville to Summerville.
No. 2085 Quercus Garryana — thickets 8 & 9 ft.
- Abundance of Yellow Pine & Douglas Spruce seedlings. Douglas Spruce stump capped over! — Photo by Mr. Goddard.

And Return to Cecilville, July 21
– Siskiyou Co. –

– Cornus Torreyi (of Wooden Valley & Lake Co) = C. glabrata (Bth.).
No. 2086. Gnaphalium. Dry soil, Pine forest
– Regarding the Knob-cone Pine forest I am not now certain that all of it is of that species but there is a great deal of Knob-cone all along.
– A miner, young sturdy fellow, at Jordans said in reply to our giving him information about our route over Trinity Summit & Salmon Summit: "Well I wouldn't want to cross that country". A region never seems as difficult to me as to the people living in it.
– On the way to King Solomon's Mine we had a fine view of "Old Grizzly," "snow-always-there" peak and the matterhorn-like peak of the

King Solomon Mine, July 21.
(Siskiyou Co.)

mainly snowy "Scotts Range" as seen from Trinity Summit. These mountains form the boundary between Siskiyou & Trinity, are on the headwaters of Salmon River South Fork, New River, and the branches of main Trinity west of Trinity Centre. It is about 40 miles from Jordan's Ranch to Carr's. This figure from Jordan – altho not certain of it now.
– Yew – 30 ft high, 1¼ ft. through, (Taxus brevifolia) branches tending to be horizontal – at King Solomon's Mine.
– Pinus Sabiniana – on sky-line – Black Bear Creek to Yocumville. Photo by J.
– Pentstemon corymbosus – cliffs of the South Fork of Salmon River.
– Zone of Pinus Sabiniana comes in below Nugget Bar – beginning of the hot canon – heat very trying, the sun baking the narrow cleft. Trail fair but rocky & up and down along the mountain walls of the river banks, rarely a small piece of semi-flat – few acres. We camped about 1 mile west of Yocumville – of which little is now left – a former mining hamlet.

(South Fork Salmon River)

Yocumville, Indian Bar, July 21
(Siskiyou Co.)

[Yew - bark red or reddish, shedding in thin and rather small pieces.]

- Prunus subcordata, above and below Yocumville.

- [The Old Miner's of Cecilville: - We stopped at Cecilville to mail post-cards. The whole population deserted the saloon for the store. As we went out to our horses an old miner followed us and invited us to "take something". We courteously pleaded lack of time. If we had done so we should have been obliged to treat in turn and all the old bums of Cecilville would have been in line. This is a game they work on the unwary but once it failed.*

No. 2087. Garrya Fremontii Torr. - shoots of the season from a cut stump.

* See Men & Manners, vol. 6, p. 38. (Private journal W.L. Jepson).

- Rhamnus Purshiana, typical Humbolat form, - on the Salmon River.

- Capped Douglas Spruce, noted this stump on trail near Summerville.

to Salmon Summit, July 22

No. 2088. Chimaphila ~~menziesii~~ umbellata. See below. In Spruce & Pine Forest.
Douglas.

- Vine Maple - keys on ripening at right-angles to stem - standing erect above leaf! Noted near highest spring on trail. Observe elsewhere - Some just in act of turning up!

- Vauconveria parviflora, "Berberis nervosa" Pursh. Quercus Garryana (one 3 ft. through), Cornus Nuttallii, Madrona.

- No. 2088. Chimaphila umbellata. Flowers pinkish or flesh-color. Filaments spreading, bearing horizontally the anthers; ~~deltoid~~ ~~entire~~ dilation at base of filament.
short-ciliate deltoid

No. 2089. Redicularis - Salmon Summit Trail Fir forest

No. 2090. Cephalanthera austinae Heller. with #2089.

Trail to Salmon Summit. July 22

*No. 2091 Lilium rubescens Wats. Ridge of Salmon Summit Trail, in dry rocky soil. Perianth white, pink dotted except at tip of segments or to tip, narrow-campanulate, the segments becoming approximate with age and the "tube" narrowing. Segment recurving, becoming more closely recurved in age. Perianth aging into pink-red. Bulb ovoid, no rootstock or a very short & inconspicuous one. – It is said that the proper way with a new steel pen is to dip it in ink, hold it over a lighted match, wipe it – then use it.

No. 2092. Lilium Washingtonianum Kell. 6 ft. h; 6 whorls of leaves with odd leaves below; 12–14 leaves in a whorl; 14 fls in a loose raceme; perianth white, lightly

Siskiyou Co.

Salmon Summit, July 22 1902

dotted, loosely campanulate, the seg- segments recurving; top whorl of leaves taken & one whorl from below middle; leaves remarkably undulate! If this holds it is a good difference for the casual observer to tie to. [Also very common on Devil's Backbone, the tall stalks (3–5 ft. h.) rising above the low chapparral, the flowers deliciously fragrant with the odor of pinks]

No. 2093 Ribes*. Salmon S. Trail.

No. 2094. Composite. Salmon Summit. = Crepis occidentalis

No. 2094a. Lupinus onustus Wats. Salmon Summit trail.

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* R. lobbii Gray.

Devil's Backbone, July 22,
on border between Trinity and Humboldt Cos.

- Valparaiso Oak, stamens 6-10
- Calycladenia humilis - red (pink order) - now in abundant fl.

No. 2095. Eriogonum compositum var. compositum Rocky backbone
No. 2096. Allium falcifolium var. demissum Composite. " "

- Boschniakia strobilacea Gray common all the way to Summerville, on Manzanita & Madrona - but has no prejudice against conifers.

I had not expected to find this so common. I ceased to scan the ground for it yet every once in a while a cluster would obtrude itself.

No. 2097. Apocynum. Rocky backbone. Leaves hanging or pendulous in heat of day like Leguminous leaves illus. in text-books. A. pumilum Greene.

No. 2098. (Troximon) Agoseris retrorsa. Loose rock, among chapparal shrubs.

(See next p.

Devil's Backbone, July 22, 1902

Knob-cone Pine - I count 15 circles of cones on a tree 13 ft. h. Cones may open on tree!!

Trees 20-25 ft h; cones down to within a few ft of ground usually persisting; about 17 or 18 circle of cones on main axis; top branches full of whorls in same way. Trees 2 or 3 ft. h. bearing cones.

No. 2099. Pinus attenuata Lemmon Also cones.
No. 2100. Chaenactis. Loose rock
No. 2101. Erigeron foliosus Nutt. Loose rock.
No. 2102. Gayophytum ramosissimum T. & G. Rocky backbone
No. 2103. Peucedanum macrocarpum Nutt. Loose rock.

Trinity Summit, July 23.

- No. 2104 - bare summits where snow has been very recently; stems fissuring at surface from tuber; in fl one week ago =
No. 2104. Claytonia lanceolata
No. 2105. Dodecatheon Jeffreyi Wet grassy mdws. Fls crimson
No. 2106. Ranunculus. Stems decumbent or erect. wet grassy mdws.
No. 2107. Pentstemon. See next p.

Trinity Summit, n. Humboldt Co.

- Caltha leptosepala, carpels: 10, 17, 24. Stamens: about 130. See no. 2056.

- No. 2106. Ranunculus alismaefolius Geyer, var. alismellus Gray. See p. 151.

- No. 2107. Pentstemon Newberryi, Gray. Anthers woolly. Ridges of palate hairy; sterile stamen short, hairy towards apex on upper side; filaments curved and bringing the anthers in approximate pairs. Is this true of all sp. in the genus?

No. 2108. Mimulus breweri (Greene) Coville. Det: A.L.G. Fls. pink. Corolla-lobes nearly equal, the lower lip a trifle larger than the upper. Moist fine-gravelly hillside.

No. 2109. Kalmia polifolia var. microphylla Rehd. Fls. pink; Shrub 6-10 or 14 in. high, in wet meadows.

- Quercus Sadleriana - stamens 5, 7, 7, 8, 17(!), 14(!), 9, 6, 5, 7, 9, 9, 5, 9, 12, 5, 7, 10, 10, 12. - Trinity Summit.

July 23, 1902

No. 2110. Alnus sinuata (Regel) Rydb. Catkin greenish-yellowish, with the purple spot of the ends of the bracts in relief, giving the catkin a distinct character from those of Oregana & rhombifolia

- Night fell before we got off the Devils Backbone last night - so when we struck the cañon depths the darkness and brushed-over trails made very difficult and uncertain going. I turned Dick ahead and the way that horse nosed out the trail over which Mr. Goddard had gone with the mule was a beautiful feat, - straight up hill, then suddenly down on account of fallen timber, back up and around - never choosing the easy way by which an animal so readily loses the trail went that horse to Trinity Summit and the light of the stars.

Trinity Summit

Hornets on trail - Charley, the Pack Mule, got a hornet in his ear while on the trail and made a great divor. The hornets nest is the terror of a pack train and may produce disaster. A maddened mule will rush forward and push other mules off the trail. It is the duty of the boss packer to guard against this. He goes ahead and seeks a sharp eye for the hornets. It is said that the packers fire the brush for this reason - the fire drives the pests out.

- Abies Shastensis - noted just below summit on Hupa trail; leaves 1 - 1¾ in. long.

No. 2111. Sadler Oak. Near Summit
New-growth leaves.

July 24, 1902.

- This Trinity Summit is now at this season abundant with fine nutritious grasses. The "bunch grass" on the ridges and summits is relished exceedingly by horses and cattle. The meadows are also fine feeding grounds. Several of the Indians bring bands of cattle up here for the summer. Jim Marshall has about 100 head; Jackson 25 head, etc. This Summit ought to be given to the Indians for a cattle range and included in the Reservation. The allotments, anyhow are very small - being only 60 or 80 acres in some cases. Indian Territory allotments run from 160-640 acres. It is unlikely this will be done. The Indians will be lucky if they save the Reservation from the White Man's greed.

Trinity Summit

- Snow-kneed firs are common on the Summit. Mr. Goddard took a picture of one near camp.

- Smilacina amplexicaulis Nutt. S. glabra Tracy! = vest representation of it = No. 2114.

- The beauty of Trinity Summit is in the open summits and meadows diversified (but not covered) by trees of firs. Last night the full moon rode high over it all - the brightness of it, the quiet, the nearness to the stars: all this was very beautiful.

- One never becomes tired of praising the cold springs of these summits. I drink quantities of water every day - and still have an unceasing thirst

No. 2112, Pentstemon (ovatus Dougl.) Fls. blue, near Summit (½ mile below).

See p. 168.

Humboldt Co.

2115b. Smilacina stellata var. sessilifolia

July 24, 1902.

No. 2113 Potentilla glandulosa Lindl. var. lactea Greene, not var. nevadensis nats. Stamens 24; petals yellow, orbicular. [There was also a digitate Pot. with broad yellow petals that I did not take. Also a Veronica.] - On Summit.

- Veratrum (californicum, just coming into flower.

No. 2114. Smilacina racemosa var. glabra Shady wood. ½ mi below Summit

No. 2115a Ditto #2114. S. racemosa var. amplexicaulis

No. 2116. Composite. Ditto

- Sadler Oak, old leaves mostly fallen now. The time of fall of the leaf in our oaks is determined by the time of new growth. The Sadler Oak is mostly 3-5 ft. high - although there were some bushes 6-7 ft. high. The stems were decumbent at base by the snow just as in Snow Brush. Snow Brush (Ceanothus velutinus) has clustered stems, gradually ascending, often spreading in every direction, but mostly down hill, in one direction. As the (bottom next p.)

See p. 156

= true Smilacina sessilifolia Nutt.

Trinity Summit to Hupa

No. 2117. Allotropa virgata. Stems like country store stick candy, the red sort, streaked longitudinally (not spirally) with white; scaly leaves (below spike) white shaded with blue!; petals none; sepals rhomboidal or ovate, thin, whitish, shorter than the purple-black stamens; pistil purple-black (except the white style!); stigma shallowly 5-lobed; sepals distinct; stamens 10, or at summit of spike 8.

Cont. bottom prev. p.:- light space is all occupied one does not notice in a thick clump the decumbent character of the bases unless he observes narrowly. Snow Brush is habited so on all these ridges and summits. There is thus a double reason for the application of the term to this spec.

Humboldt Co.

July 25, 1902

- Douglas Spruce, 20 ft 10 in. at 5 ft; 225 ft. h.

No. 2118. Streptanthus orbiculatus Greene. On open Summit.

- Madrona, 10 2/3 ft. at 5 ft - perfect trunk, with much swollen base, the tree 110 ft. high. (= S. tortuosus Kell. var. orbiculatus Hall.).

- Lowest slopes on Hupa trail from Trinity Summit:- fine Black Oak groves on hillside, pure forest, trees 50 ft. high. Also fine Madrona.

No. 2119. Eriogonum. Coloring opens in forest, about 800 ft. above valley level. [= E. umbellatum var. bahiaeforme Det. Mar. '13]

No. 2120. Velezia rigida L. Caryophyllaceous. Petals pink, oblong-obovate, deeply emarginate at apex, 1 line long. Gravelly beds of Supply Creek, Hupa

~~No. 2120~~ Ceanothus velutinus.

Hupa, July 26, 27, 28

-Echinocystis _____, grows in fields, roasted + eaten by Hupa Indians. Tān-chin-twin.

-Klote-ditz, tar-weed flour; area burned off for the Indian woman walks along, holding the cone-shaped with the rim under the heads of achenes, flanking the "seeds" into the basket with a small woven beater, round, with a handle, shaped a bit like a small fry pan, except that the shape of the body is so low-conical that it is nearly rotate; - Mr. Goddard took fine specimen baskets of each. The species of the sort we found in an Indian home

Hupa, July 26, 1902.

was same Hemizonia or Madia, - apparently ray-achenes. Specimens of these achenes taken as well as of the ground flour or prepared product. We witnessed all this, the pounding with stone and mortar, the sifting, the manipulation of the basket to get rid of the dirt. Before grinding the "seeds" were put in a broad low basket of large size and roasted with red-hot coals taken from the fire, the seeds kept moving by shaking of the basket. Then after grinding the flour is ready to be eaten without further preparation - I ate of it; it was palatable; it had a spicy flavor and

Hoopa Valley

was very rich.

At the Hostler Ranch we saw the old-timer "Old Rogers" – who is the butt of all jokers, Joshers and story-tellers in Hupa, – chip an arrowhead, taking his crude piece from a large unbroken block of obsidian. The process consumed over an hour.

At another Indian House we ate of acorn soup with shells and elk's horn for spoons. The hot stones which cooked the soup were left in the basket which contained the food. With salt the product was very palatable and I am sure that with a little education I could come to like the dish very much.

At the same hospitable place

July 28, 1902.

we were also given dried salmon. It seemed to me at the moment that I had never tasted anything so good and sweet as this dried salmon – and the memory of it (now two days old) still abides with me in such a way that I fancy it may stick a long time.

The next day we stopped at the same cabin (how doth the deer return to the fine feeding ground!) and ate of Chlorogalum pomeridianum bulbs. It has been said that these were too unfit for even the Indian to eat! But behold, we tasted – and the "meat" was as sweet as nuts. I did indeed like the same at once. I could have eaten more than the one but I was

Hoopa Valley

ashamed to so trespass upon the poor Indians stores. So it is clear that the Indians need as food a long list of native things and such as would seem absolutely unfit according to White Mans standards they had means of correcting to fit use, by driving out in some process of heating or mixing with other things the deleterious qualities. They had two sizes of the bulb of which we ate, the small ones they like, the large ones not as good they trade off to the Klamaths who have none of either!

July 28, 1902.

- Mr. Goddard meets an Indian: then something that sound like this: E-kay. E- on-ahl-i-o (How do you do. My friend?) // Oh, I pretty well. I first rate. Or, Oh, I work! I work now!

- Jim & Mary Marshall are making strong determined efforts to live like White Man. They have 6 boys: Julius, Edward, Jimmie, Joseph, Ernest, Maryland - The second third and youngest are very good-looking - Eddie is particularly fine-looking little fellow about 13 yrs old. All came to church yesterday, the little fellows dressed in their best blue suits and looking well indeed. Their manners at table - we dined 3 successive days with them - are

Hupa Valley Humboldt Co.

– Red Bud, 14 ft. tall. (Cercis occidentalis) better by far than is found in many white Families.

No. 2121. Salix melanopsis Bolanderiana (Rowl.) Sedn. Supply Creek.

No. 2122. Rubus leucodermis, " "

No. 2123. Alnus rhombifolia (Dougl.) ~~Oregana~~, shoots. " "

No. 2124. Philadelphus shoots, " "

see p. 167.

– Left Marshall's, Sat evening July, and camped at Depke's, putting the horses to hay that night. The horses were taken out on the following Tues. morning. $100 per night.

The hire of Depke's mule was 50c. day

– "Old Scotty", – 125 ft. broad in largest way of crown – 90 or 100 ft. high – the name we give to the Maul Oak, largest in Trinity Co, the measurement previously

July 29

recorded. I never saw elsewhere such fine Maul Oaks on valley level. Photograph by Mr. Goddard.

– Cont. p. 166. Philadelphus lewisii Pursh var. gordonianus Jepson. No. 2124.

Tan Oak: Cluster of 4 around former tree:

:– 5 ft. 9 in.
6 ft. 5 in.
5 ft. 2 in.
5 ft. 5 in.

Central area about 20 in. in diam

Hupa to Willow Creek – on summit.

About 110 ft. high – the cluster.

– One little clump of Redwoods in Hupa – a mile (isolated) or so below the school, in the hills – on same side of river.

Hupa to Willow Creek, July 29.

[The Madrona on the Hupa trail to Trinity Summit, struggling for light, its base or trunk jammed in tightly against the base of a great Maul Oak. They started so. Did the Maul Oak yield a bit? not one jot. It took all and the Madrone grew its trunk high and sinuously outreaching until it got its crown into a bit of unoccupied space between a pine tree and the oak. Ah Madrona! truly a "Gallant of the glade!"

Madrona does not stand intimacy with the White Man - those on the school campus at Hupa are dying acc to Dr. Lindley.

- Penstemon rattani Gray var. minor Gray. No. 2112. Corrected det.

Humboldt Co.

and Three Creeks, July 29, to Redwood C. July 30, 1902

- No. 2125. Holodiscus. Flowers almost, white, in great discolor Maxim. beautiful drooping clusters near summit between Willow Creek & Three Creeks.

- No. 2126. ~~Godetia~~ Clarkia amoena, G. Don. Some with spots. Summit, Willow Creek to Three Creeks.

- Vaccinium parvifolium, in fruit. Three Creeks.

- Lawson's Cypress. trees 100 ft. b: the branchlets persistent for several years, then deciduous, physiologically these ultimate branchlets in function & time of persistence are analogous to leaves.

Fine grove of these trees in bottom canon just above Three Creeks - trees 110 ft high, possibly 125 or 150, and 3 ft in diameter bark brown or somewhat reddish -

Three Creeks to

brown, fissured longitudinally, the furrows continuous and ridges flat & despoiled by scaly or stringy in young trees esp. [Pinus Sabiniana - main roots lateral - no tap root. Douglas Spruce same, no tap-root but may have some vertical roots but inferior to lateral.

No. 2127 Sphaeralcea acerifolia Nutt. Petals pink, flabelliform. Fls protandrous. Fels in terminal spike and in smaller spikes on lateral axillary branches just below terminal spike. See p. 26a.

No. 2128. Campanula Fls valvate! Stigmas 2! In shade Fir forest

Humboldt Co.

Redwood Creek, July 30, 1902

- It is has always been a great delight to drive through these great aisles of Douglas Spruces (or Yellow Pine as the case may be). It gives one such a luxurious feeling, the horses trotting and the wagon rolling smoothly over the even dirt road of the forest floor -

- Holodiscus bushes - fine. cluster by old cabin on ridge - picture taken by Mr. S. - Young Douglas Spruce in background

- We come upon a few brief "Prairies" (open) on the ridges. A mere suggestion of the Ranges far south.

No. 2129. Taxus brevifolia Nutt. Yew. Tree of distinctive habit, the drooping branchlets and horizontal main branches, if some not horizontal at least not uniform; top not aspiring.

Three Creeks.

Humboldt Co.

Redwood Creek to Angel's Ranch, July 30

No. 2130. ~~Clarkia~~ Godetia amoena var. lindleyi Gipson. all with outside spot. Three Creeks to Redwood Creek, summit ridge

No. 2131, Lawson Cypress. Three Creeks to Summit ridge

No 2132. Ida-May Friedrackero.

Summit ridge.

Brevoortia ida-maia Wood.

- Tan Oak thickets under Douglas Spruce forest on ridge, between Green Point Ranch and Acorn - shrubs averaging 6-11 ft. but mere seedlings present also, and young trees 18 ft. Shade-enduring species! Some 7 or 8 miles of this association.

- A little Redwood - a few trees - on ridge, just before reaching Acorn.

Angel's Ranch to Arcata, July 31, 1902.

- Met Justice McDowell on the grade. He hailed some freight for the saloon-keeper at Willow Creek who took care to call him into the bar-room and pay him in the presence of others. "Come boys, let's go over to the store and get some cigarettes" said the Judge. So they went over and came back and smoked them in front of the saloon-hotel. This story tickled my friend immensely.

† Goddard

- The Tan Oak shoots from cuttings on this ranch now 20 ft. tall. Anderson does no cutting himself; he leases the land for so much per cord taken. This money he turns right back on to the land for "brushing" - (clearing) - so that the grazing area is increased without expense to himself.

Arcata to Eureka

The man (of foreign extraction) with whom we stopped all night at Three Creeks does not "think much" of the Hoopa white people. Mr J. explained that there were only two and disposed to be quarrelsome. "Yes," said the man, "I'd rather keep company with a book. When I get tired of a book I can shut it up. When I get tired of a troublesome man and tell him to shut up he is likely to lick me." Remember this is backwoods.

– Redwood stumps hard to clear from land: Douglas Spruce & Pine rot off in a few years and can be pulled out. Redwood roots are there to stay since

July 31, 1902.

the wood does not rot in soil and its reproductive powers are so great. Even attempts to haul out the stumps with a steam-donkey are not successful.

– At Eureka the hotel charges 50c. for meals, 50 cents for beds – the usual or at least minimum rate for the "first-class" hotel in California. This rate is for the regular run of travelers; but country people from the back country, say Hoopa way, are charged 25 cents.

– I bought a set of pictures of Ericson at Arcata: the pictures are numbered with the notes on the following page:–

Arcata

No. 1. 17x19 ft. butt; 300 ft. long; 150 ft. to first limb. Vance's
No. 2 Ditto. at Vance's
No. 3. Logging with donkeys. Vance's
No. 4 Smith River
No. 5. Undercut. Riverside
No. 6 Eel River, grove on "island" when there is high water.
No. 7 Undercut, Warren Creek 16 or 17 ft.
No. 8. Back of undercut, Vance's
No. 9. 25 logs pulled by Bull Donkey, Freshwater
No. 10. Shingle bolts, Humboldt Mfg. Co. 75½ cord tree
No. 11. Freshwater Logging train, 25 cars.
12 Eel River scene ½ Bull
13 Vance's after logging.
14 Smith River

July 31, 1902

15. Riverside, undercut
16. Ditto, No. 11

Eureka

Mr. E. Janssen of Hardware Company:
The Tan Oak forms a belt inside Redwood; as one goes up the Pine (Douglas Spruce) & Madrona come in; in these mixed woods we get the Tan Oak.

The greatest amount of connected Tan Oak is in the Shelter Cove district. At that point there is a break in the continuity of the Redwood belt; at that place the Redwood belt has Tan Oak on both sides of it.

The Redwood is a tree of the lower levels. Get in the higher mts & the Redwood disappears. Of course I dont mean that there is no Redwood on the higher elevations but there is little of it. It gets its start on the swales or in the canons and then pushes upwards, making conditions of light & moisture suitable. I don't believe the Redwood ever start on the high cañon sides.

Aug. 1. 1908

One of the very best places to see the relative position of the Tan Oak is between the coast and Kneeland Prairie. Kneland P. is 2400 ft. high. There open ag grazing country begins. From Kneeland Prairie down to Mad River is 7 miles by road. Along this road there is no Redwood but Tan Oak. They are cutting a great deal of Tan Oak there. They pull it up hill on sleds and then by wagon out

Eureka

to Freshwater. After a little the wagon road is very bad for teaming. For 2 or 3 miles the wagon road is good, the rest bad. For 5 months after the rains begin it is muddy. They get paid for their work. It is the same as if they hauled so much gravel to Eureka; they get nothing for the bark. The returns simply pay for labor. There is no Redwood the other side of Mad River [It is interesting that these streams flowing in a northerly direction limit the Eastern trend of Redwood; until you get near enough to ocean the Redwood does not

Aug. 1, 1902

cross them. Perhaps the point at which the Redwood crosses Mad river and other rivers can be more accurately located.]

A little Tan Oak on Mary Blaine — 6000 ft. alt — in Trinity Co.

The McKee people at McKee's & Franks can give you information about Tan Oak.

Mr. M.A. Casterlin — The first Tan Oak cut in the County was at Bugle Ranch — 20 years ago.

The price of Redwood claims has advanced tremendously in the last few years. In hard times (1894) we could not raise money on Redwood claims — money was so close. I was offered $50.00 per acre for 160 acres a few days ago. I did not take it. I said I would take $150.00 per acre.

Eureka

Redwood "peters" out at Bridgeville (2 mi. west).
Tan Oak begins.
More T.O. on Burn Creek.
Mr. Casterlin had 1000 acres of T.O. at Blacksburgh. 160 of it very fine. Fire never through it. Some of it would run 15 & 16 cords per acre. Worth $6.00 cut on the ground, but too far to have out now with profit. Fire makes trunks bare to peel - these trees left. - M.A. Casterlin

Distillery at Briceland.
Had a grinder once at Philipsville
No Tan Oak close to M. Eel here but "up a little way" east of river.
Fine body of Redwood on Bull Creek. Between Salmon Creek & Redwood Creek the Redwood disappears as a solid body -

Aug. 1, 1902.

poor back from South Fork Eel. See Humboldt Co map of 1898 for these localities. grazing country about Bear Buttes. - Mr Casterlin

- Briceland, distillery now being put up; have had 70 men peeling bark this summer - piled under sheds to await distilling process. Saves heavy charge of transportation of bark. Little bark shipped from Shelter Cove; great quantities from Bear Harbor; former open roadstead, latter place, fair harbor. - Mr. Charles Roberts.

- Bald Hills - the region lying back of the Redwoods, the tops of the mountains often with bald spots.
- Bald Mountain - Acorn P.O. district

Eureka

- King's Peak - 4265 ft -
- Mattole Peak - directly S. of Petrolia
- Chemise Mt - 2510 ft.

Mr. Charles Roberts, County Treasurer; 200 acres taken for a claim - 500 acres will be considered a good claim - no 40 pure.

Finest Tan oak on Klamath River, I never saw a fine lot - Mr Roberts refers to region on Roach & Fully Creeks between Elk Camp and the Kuka Reservation.

- Redwood - finest body is in Trinidad, township - prairie near the ocean - always was there - Dow's Prairie -

Pris Oak (= Tan Oak) - runs so much sap - run a bucketful in season!

- Red Oak - indestructible character wood - will not rot,

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Blocksburgher - "keeps two squaws and gambles a little" Lived with two squaws at same time. When he was away they took turns turning the coffee-mill. He snored so hard when home that they couldn't sleep without his snoring! The town of Blocksburgh was named for him - the spelling being altered or "anglicized" roughly. - Mr. Casterlin. Is well informed on Tan Oak.

Mr. Robert thinks it would be an extremely difficult matter to estimate the no. of acres of Tan Oak. Obviously it would. The Redwood belt thins out as one goes up, for a mile or several miles it will be scattering, then a little Tan Oak & Madrona, & "Pine" (Douglas Spruce) comes in, then the hardwoods & pine become thicker; there will be a little Tan Oak here, a good streak on the canon side there, some on the ridge here.

Eureka

- Indians previous to 1863 burned country - effect was to clear the country of underbrush & keep the forest growth in check. They did this every two or three years. Since then nature has taken 10 acres of prairie an open for way I cleared. The ordinary settler want God Almight to clear land & seed it down. All of us who have traveled through this country know the type very well. In similar way the wild animals have increased Bear panther & bob-cat - effect on sheep etc. The 150 old hunters gone who used to do nothing but hunt. They came into Eureka with their pelts, bought tobacco, got drunk, then they go back & lie down. They kept this up and the animals were kept down. But no longer have we these old hunters lying in the sunny side of the jungles.

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- North of Klamath into Oregon I passed over a burned country - just as this country used to be burned. Not a spring of grass, only stubs left of oak brush, pine trees burned around roots; country no use but to hold the world together! no water for 20 miles - well that is the way the forest is held in check by repeated burnings. - Mrs Charles Roberts

- Effect of fire on redwood - on Eureka Prairie road - area burned off 20 yrs after logging - now trees 1½ ft through - 75 - 80 ft h. Everything was taken off that could be - even shingle blocks - man sowed grass seed - thought he was going to have grazing land - now it's all densely grown up with saplings - Mr. C.D. Roberts.

- The difficulty of estimating the amount of Tan Oak in acres is enhanced by the fact that no quarter-section or even 40 is pure. It is always mixed with other trees. I never saw a pure 40, or even 20! Douglas Spruce may be pure & redwood and considerable Black Oak

Eureka

— White Oak (Quercus Garryana) hardness + closeness of grain shown by its holding water. Piled cord-wood under shelter for 3 yrs, brought it into town, when put on fire water oozed out of end of sticks!

— If Tan Oak were saved, lumber could be ~~painting ends of oak~~ saved by keeping under shelter. To prevent checking there should be painting of ends of oak planks. The oak which we get here on the coast from the east costs $75 to $125 per M. For furniture Tanbark is as good. It is a pity it cannot be saved. One trouble is the lack of demand. The mills will not bother with such small logs. Besides they have no appliances for sawing such small logs. The timber was used by me for wagon-tongue, double-trees and similar purposes on a ranch where a hard wood is needed. Not as good as Red Oak (=Maul Oak). Does not become brash. — Charles Roberts.

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— Mr. Charles Roberts in Land Office, '72–'86; 16 years since leaving. His theory is that the forests ~~are~~ advancing. He has had experience in the Land Office, as a sheepman, and as a tanbark man. Mr. Casterlin thinks that his judgment regarding this matter is very close to the truth. The ordinary claim-holder or settler will not clear land. As Mr. Roberts expressively puts it he expects God Almighty "to clear the land and seed it down for him". He may and does clear an acre or two but this is insignificant. Once in a while you will find a settler — one in ten — who actually does clear land but for every acre cleared

Eureka

since 1863 the forest has taken ten is the emphatic assertion of Charles Roberts.

– Some one had a daughter in Oakland schools. There wrote essay on the forest. Teacher told the girl sheep greatest enemy of Redwood forest! (This man had been reading John Muir etc on the forests!) Now the father knew – what is true – that sheep will not for "love or money" touch redwood.

– Mr. Charles Roberts spoke most enthusiastically of what he calls Red Oak. He has five oaks at Kneeland Prairie (1) White Oak = Q. Garryana (2), Black Oak = Q. Californica, (3) Tan Oak, (4) Chinquapin = Castanopsis chrysophylla

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(5) Red Oak. This Red Oak must be by process of exclusion = Q. chrysolepis. Mr. R. knew of a case where the wood had been exposed for 30 years and had not rotted. He speaks of the wood as Red.

– Timber settlers will call a claim Tan Oak claim if it has as little as 200 cords on it. 500 cords considered a good claim.

V. Zuraba, Supt at Korbel. For information as to amount of Tan Oak from Bald Mt. region.

Thos Baird at Bell's Wharf for information as to amount from Kneeland Prairie.

Thos. Devlin. Arcata Tannery
Freshwater Tannery

Eureka

-Not 10 percent of Tan Oak has form cut No! Five per cent? Well I doubt it, I doubt it! So said Mr. J.R. Barnard of the Redwood Investment Company (perhaps not an unprejudiced authority) - There is lots of tan bark on the headwaters of Salmon Creek and Pure oak. Well no, not 40, nor 20 but an area with nothing but tan-bark in it. You will find tan oak everywhere after passing through the Redwood belt and getting up to the headwaters of the streams like Elk ~~Creek~~ River and Lawrence Creek - Lots of tan oak between the headwaters of those streams.

- Bull Thistle, galore, 3-5 ft. h.

Aug. 1, 1902.

- Cottrell of the Fleming Mill: gave me a turned piece of Tan Oak - 63 years old - as good as it was the day it was turned. Should be splendid for inside finishing. He pays $125 per M in S.F. for Eastern Oak - 10 in and 12 1/2 in at most inside planks. [And yet any amount of Tan Oak is rotting. It gets "dozy" by the second year - borers get into it]

Cottrell ordered White-Oak logs of a man on Eel River - hauled in cars at Scotia and brought to Eureka - $30 per M. Told the man selected the logs to lie only in the sun and they were so warped & checked they could not be used

Eureka, Aug. 1, 1902.

-Block Reburger has a dry-goods store at Blocksburg. He was in Eureka yesterday but apparently got away last night. He is a unique character and I was sorry to miss him.

No 60. Tan Oak/ale in farmyard from Spring to Briceland

No 59. Isolated Tan Oak, Golden Ridge.

No 57 & 58. Felled & peeled Tan Oak log - on ground 2 to 4 years, stump 6 ft 10 in by 5 ft 10 in at 3 ft 2 in One picture shows shelf fungus (Golden Ridge as also No 56)

No 56. Tan Oak stump, fire-killed tree, with sprouts growth about 10 yrs old

No 55. Prairie above Fox's Spring [Kings Peak in background] bordered by Douglas Spruce, Black Oak & Madrona.

Photo Record.

Spool No 3.

No. 25. 26, 27 - Fallen (Wind) Tan Oaks. Willow Creek to Hupa

No. 28. Tan Oak Cluster - trees 100 ft high.

No. 29. Spire-shaped top Tan Oak Willow Creek to Hupa

No 30. Tan Oak Forest, trees 115 ft. 6 to 2 ft. diam. Willow Creek to Hupa

No. 31. Indian cottage; smoke house to right Hupa Valley.

No. 32. Indian village. Lower Hupa Valley

No 33, 34, 35. Crossing Trinity River

No 36. Pinus attenuata on Devil's Backbone

Spool 4. No. 37. Miners Cabin, Indians to Cecilville

No. 38. Yocumville

No. 39 Salmon Forks

No. 40. Salmon Summit.

No. 41. Pines on edge, Trinity R. camp

No. 42. " " Rear " " "

No 43.

No 44. Indian Sweat House, Hoopa Reservation

No 45. Indian Graves, 17 Hoopa Reservation

No 46 Locust tree, Indian storehouse, Hupa

No. 47. "Old Rogers" making arrow-head from block of obsidian.

No 48. The School at Hupa.

Spool No. 5. No. 49. Prairie above Bonnie, backed by Douglas Sp. Black Oak

No 50 Tideland Spruce, north End

No 51. Country house near Ferndale.

No 52. Dwelling Spruce, " Cape Mendocino

No 53 Bare nuts n. of Bear River (from summit S)

No 54 Petrolia

Cash for myself

From Mr. G at Eureka

- Expressage Cost — 50c
Knife - 75
Toothbrush - 25

Hupa —

Pipes. 6 bits + 1 bit.

Willow Creek, oath, 25c

Cash for C.

Oats at Depke's, - 90c